

# ***Sportsman Pilot*** <sup>TM</sup>



**Fall**  **1981**



# Sportsman Pilot



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ALL ARTICLES AND PICTURES BY JACK COX UNLESS OTHERWISE CREDITED.

Kaleidoscope	3
The Waco Fly-In	6
Tullahoma's Old South Fly-In	8
The Biplane Revisited	14
It's A "Forwarder", Friends	16
The 700 Weekend P-12	17
How Eze? . . . Is The Question	18
Dub's Cub	20
The AOK . . . Is!	21
Marion '81	22
A 32 Year Love Affair	24

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## Mag Check

Every sport and hobby needs its Super Bowl. There, a particular endeavor receives its maximum exposure, creates its public image, wins friends and converts. In the sport aviation world the Super Bowl is, unquestionably, Oshkosh. This huge, superbly administered event has given all phases of recreational flying a level of creditability in the eyes of government and the public that virtually guarantees the sport will endure and prosper.

Equally important, however, is a sport's grassroots. Local events, from picnics to flying poker runs, from chapter get-togethers to regional fly-ins, are vitally needed to keep interest at a high level year 'round. Not everyone can go to Oshkosh every year. There has to be something to keep the juices flowing between pilgrimages to mecca.

Golda and I are heavily involved in the Oshkosh fly-in each year. She runs Press Headquarters and I cover the event for **Sport Aviation**. It's always exciting, despite the long hours and frantic pace. And, unlike everyone else, our work really begins when it's all over . . . when we return to the office and start the three month process of putting it all on paper.

We REALLY need the grassroots!

Our way of decompressing from the pressures of Oshkosh is to use our vacation time to attend one or two of your local, late summer fly-ins. There, we can be ourselves, can sit in the shade of a wing and visit with friends to our hearts content . . . can talk airplanes until the cows come home. We love it . . . and can't resist bringing along the camera and tape recorder so we can share the fun with all of you through the pages of **SPORTSMAN PILOT**.

In September we attended the Tullahoma, Tennessee Old South Fly-In and the Mid-Eastern Regional Fly-In at Marion, Ohio. Both were tremendously enjoyable events and we came away from them relaxed and renewed. Both ought to be on your calendars for next year.

Our sincere thanks to our friends, old and new, at both places . . . for your hospitality and for your worthy efforts to make our sport aviation world a better, more enjoyable place than you originally found it to be.



# KALEIDOSCOPE



## NASA VARIEZE TESTING - CONTINUED

In Volume 1, Number 1 of **Sportsman Pilot** we featured an article on NASA Langley's ongoing wind tunnel investigation of the VariEze. Since that time, a number of new and extremely interesting developments have come to light.

For one, some VariEze pilots have detected a trim change in their canards when flying through rain. Joe Johnson, Head of the Dynamic Stability Branch at NASA Langley, put their full scale Eze in their monster wind tunnel and sprayed water on the canard to simulate rain. Sure enough, a nose-down trim change was measured. Investigation showed the trim change to be at least in part a function of the particular air foil used on the canard, so Burt Rutan decided to design a new blunter nosed one for the current Long-EZ to see if the problem could be overcome. Johnny Murphy of Cape Canaveral, Florida was given the job of building and testing it on his "Sweet Music." It did work - no pitch down in rain. Interestingly, however, Mike Melvill's very, very accurately built and superbly finished Long-EZ has **never** exhibited a pitch change in rain **with the standard airfoil!** The jury is still out on this one, but perhaps the solution will be the new blunter airfoil which will not change trim in rain even when not built to Mike's super tolerances.

Incidentally, the trim change is more of an irritation than anything else. It is not a safety problem. All airfoils are affected by rain - it's just more noticeable on the Eze's canard.

More recently, the fellows down at Langley have discovered that their full scale VariEze retains laminar flow right up to theoretical limits - as much as 60% of the chord of both the canard and the wing. They have a substance that is sprayed on the airfoil that will sublimate (change directly from a solid to a gaseous state) in the area of turbulent air. Thus, after a flight (or wind tunnel run) you can actually see how far back the laminar flow stayed on the wing.

To confirm the wind tunnel findings, Joe Johnson arranged to have EAAer Bob Woodall of Adelphi, MD fly his VariEze with the stuff sprayed on his wings. It, too, showed laminar flow to near

theoretical limits - something unheard of on an everyday use airplane. As a back-up test, a grit material was applied to Bob's wings to trip the laminar flow. If he really was getting the phenomenal flow he appeared to be, the grit would cause a decrease in performance. Amazingly, his cruise speed was cut 12 mph and his landing speed increased by 10 mph!

By this time **everyone** was excited! A team was flown to Mojave and both Burt's and Mike Melvill's Long-EZs were sprayed and flown . . . with the same results - amazing retention of laminar flow. The new Amsoil racer was also tested and it duplicated the results found with the Long-EZs.

What is causing the phenomenon? So far, NASA believes it to be a combination of the airfoil used and the very smooth composite skin surface. The fuel savings implications alone are of monumental importance to aviation . . . and it wouldn't have been learned about had it not been for the freedom homebuilt designers have to try new things, the genius of people like Burt Rutan and the thirst for new knowledge of our scientists at NASA Langley. Together, they **are** the cutting edge of lightplane technology.

An interesting sidenote: while in Mojave, the NASA test pilots flew the Long-EZ and one of them took it as a personal challenge to find a way to get the airplane to depart from controlled flight (i.e., achieve a stall break and maybe enter a spin). He tried **everything** - but was never successful. In the end, he pronounced the Long-EZ free of the departure problems of "normal" airplanes.

## GEORGE PEREIRA O.K.

In the Summer 1981 issue of **Sportsman Pilot** we gave you a sneak preview of George Pereira's sleek new GP-4. It's construction has undoubtedly been slowed due to a not-so-funny thing that happened to George on the way to Oshkosh this past summer. Over Nebraska in his prototype Osprey II, he had his 3-blade wood prop suddenly sling itself into a million pieces. He managed to get the engine back to idle before catastrophic structural failure of the airframe could occur and glided down to a landing in a field of tall Nebraska corn. It banged up the wings pretty badly, but George walked away from it and that's all that really counts. The prop was one of many 3-bladers flying on Osprey IIs - all made by the highly respected Ole Fahlin. In all his long years of prop making, Ole had never experienced such a failure, but he immediately sent letters to all his Osprey customers asking that they ground their 3-bladers. He has subsequently embarked on a crash program to develop a two blade propeller (with very wide chord blades) to replace the questionable 3-bladers. In the meantime,

George is repairing his Osprey II . . . after which he'll get back on the GP-4.

We're glad you're O.K., George.

## NEW 'COUPE COMING

First, congratulations to Gar Williams. His Cessna AW, which graced the cover of Volume 1, Number 1 of **Sportsman Pilot**, really cleaned up this summer. It was Grand Champion at Oshkosh, and a few weeks later, Grand Champion at Blakesburg. There's really nothing more an antique airplane can do for an encore, so Gar is placing the AW in the EAA Museum this fall. Those of you who received our inaugural issue read the first article and saw the first pictures published on this magnificent airplane. We're kinda proud of that.

Gar has already started a new restoration - a Monocoupe 90A he'll convert to a Lycoming O-320. That it will be a beauty is a foregone conclusion. We can't wait!

## WINGS AND WHEELS AUCTION

The Wings and Wheels museum, presently located on the west side of the Orlando International Airport in Florida, has closed and its large collection of aircraft, autos and other transportation artifacts will be auctioned off on December 6. The sale will be conducted by Christie's Associates and will be open only to those who purchase a \$25.00 catalog of the items up for bids. Catalog holders will be given an opportunity to examine the sale items on December 4 and 5.

Wings and Wheels has been located in one of two huge B-52 hangars left when the Air Force turned the former McCoy AFB over to the city of Orlando. Reduced tourist traffic over the past year was a significant factor in the museum's demise, but the final blow was administered by Page Air motive, which outbid Wings and Wheels by a wide margin for use of the hangar.

## ALTERNATE FUEL ACTIVITY

Most of you are well aware of EAA's work with alternate fuels for light aircraft. Application has been made with FAA for a Supplemental Type Certificate allowing use of auto fuel in the Cessna 150 series . . . and for the first time FAA has expressed a willingness to examine the results of EAA's test work.

In Europe where fuel prices are far higher than in the U.S., investigation of the possible use of car gas is taking on a new sense of urgency. Several governments are, themselves, doing test work . . . perhaps having realized that if something isn't done soon, they will have little civil aviation left to administer (and tax). In Britain bench testing of 160 and 260 hp Lycomings on auto gas has failed to turn up any technical problems. And in Sweden a C-90 powered Piper Cub has been flown 350 hours on auto gas. The engine was torn down by the government at 200 hours and found to have no abnormalities of any type. Lead deposit problems previously encountered with 100LL have disappeared. The Cub has been climbed to 20,000 feet in an at-

tempt to induce vapor lock, but none occurred. Another 200 or so hours will be flown, followed by similar tests on a Lycoming O-320. The Swedish Board of Civil Aviation has agreed in principle to certify small engines for auto gas if tests continue to be successful.

One of the most interesting experiments **Sportsman Pilot** has heard of is being done by Yorkshire Light Aircraft in England. The outfit is running a Continental O-200 on Jet A-1! Compression ratio has been lowered, the fuel is preheated and the engine is started on av gas, but, otherwise, it's a stock engine. The engine develops 90% of rated power (90 hp) on the jet fuel, with no apparent ill effects.

The most interesting quote on the av gas versus auto gas controversy came from an Englishman who, when referring to the use of aviation grade gasoline in small lightplane engines, said, "It's like feeding pigs on strawberries."

## MONI ON MARKET



John Monnett's MONI, which you **Sportsman Pilot** readers learned about last May, is now on the market, although kits won't be shipped until late spring of 1982. John will guarantee you a kit price of \$5,000 if you make a \$500 deposit by January 1, 1982. You'll get a complete kit, including the KFM 107 engine, plans, construction manual and materials . . . everything needed to build the airplane, except paint. The work will already have been done for you on anything requiring machining, welding, complex bending or shaping.

Following Oshkosh, John experimented with a number of new propellers and was able to reduce prop noise significantly over what we heard at Oshkosh. It was a little screamer there - but the airplane was still in its first few hours of test time then. John says the tiny KFM engine has been trouble free since day one of the MONI's flight test program.

Monnett Experimental Aircraft is now located on Wittman Field in Oshkosh, just east of the post office. The new address is P.O. Box 2984, Oshkosh, WI 54903. You can now fly in to purchase materials and/or look over John's prototypes.

## PAPER AIRPLANE FLIES

Molt Taylor reports the initial test flights of his "paper airplane", the MicroIMP. A single place pusher powered by a Revmaster converted Citroen 2CV, of about 23 horsepower, the design's outstanding feature is its construction materials - a laminated sandwich consisting of a core of thick paper, to which are bonded layers of resin impregnated fiberglass cloth. The pattern for each part is printed right on the paper; the builder cuts it out and lays up the glass on both sides. The result is a lightweight,

very rigid part that Molt says is cheaper to produce than by any other method. The paper is made in Molt's hometown of Longview, WA, so he has an inside track on availability.

The prototype was initially flown on September 23 by Molt's associate, Jerry Holcomb. It was flown again the following day, this time for over 4 hours. At 3200 rpm and with the wing's flaperon in the "trail" position, the MicroIMP indicates 92 mph. Reflexing the flaperon instantly increases the speed about 9 mph - to 101 mph. Full bore - 3500 rpm - produces 115 mph at near sea level. Rate of climb with the fixed Hendrickson prop is about 400 fpm. The MicroIMP cockpit is surprisingly quiet, Molt says. Apparently the "paper" construction soaks up a lot of decibels.

The airplane is aerodynamically clean, which is reflected in its power-off rate of sink of about 270 fpm. It slips beautifully, according to Molt - up to 30° in a forward slip. Releasing the rudder brings it back straight instantly. Molt is particularly pleased with his little quick action, manually retracted landing gear. Pops up and down as quickly as the BD-5 gear we used to see at Oshkosh, he says.

Molt always does extensive flight and static testing before he puts an airplane on the market, so it will be a while before he's ready to sell anything.

## "PAPER" ULTRALIGHT

Jerry Holcomb, Molt Taylor's associate, is designing a second (or maybe **third**) generation ultralight, utilizing the "paper" construction material. It will have conventional controls and is intended to appeal to licensed pilots. A Zenoah engine has been ordered.

## ALEXANDER BULLET

The Colorado Springs Chapter of AAA has located some parts and pieces of an Alexander Bullet in an old building in the city. (Colorado Springs was the site of the old Alexander Eaglerock factory.) The Chapter hopes to build up a Bullet using the old parts, probably for display only. The Bullet was the first in a series of tracks left on American lightplane design by Al Mooney that include the little known Mooney AX and A-1, the Monosport, Culver Dart and Cadet and, yes, the Bellanca Crusair.

## BD-7

Remember the BD-7, Jim Bede's 4-place extrapolation of the BD-5? It was sold at the sheriff's auction of Bede Aircraft assets and was purchased by two men from the Portland, Oregon area. Our information indicates the airframe has been extensively modified (mainly beefing up the fuselage structure) and it is nearing its initial test flight. Interestingly, although the BD-7 was auctioned off several years ago, it is still listed on FAA's records as owned by Bede Aircraft Corporation of Newton, Kansas.

## STAINLESS HARDWARE KITS

Several outfits are now packaging kits of stainless steel hardware (screws, nuts and washers) for various popular light-

planes. They're not particularly cheap - unless you count your time running all over the place for one or two lousy little items. We were able to examine the goods of one such supplier, JACO Aircraft Kits, at the Marion, OH fly-in and get a list of the aircraft for which they supply hardware kits. We were glad to see they include a lot of Classics - such as the Cessna 120/140, 170, the Piper J-3, Aeronca Champ and Chief, Navion, Ercoupe, Luscombe, Stinson 108, Swift, Taylorcraft - in addition to most modern singles and twins. Prices are different for each kit, so write for their info sheet. The address is JACO Aircraft Kits, 1674 Sunset Ave., Akron, OH 44301.

## EXPERIMENTAL VEHICLE NEWSLETTER

The cost of gasoline has inventors working on all sorts of weird and wonderful ways of getting from Point A to Point B economically - everything from powered skateboards to the homebuilt aircraft we are involved with. Mother Earth News is publishing a 6 times per year newsletter covering all those human powered, electrical, hydraulic, diesel, alcohol and what-not powered one, two, three and four wheeled vehicles. You get six issues for \$25.00 from Experimental Vehicle Newsletter, P.O. Box 70, Hendersonville, NC 28791. The July/August 1981 issue featured Ken Brock and his KB-2 gyroplane.

## "BIG BROTHER" NUMBERS

A couple of years ago the FAA ruled favorably on EAA's petition to reduce "N" numbers from 12 inches to 3. At that time there were only a few environmental groups in opposition - and they wanted chord width underwing numbers. Since the 3 inch numbers have come into use, a hue and cry has arisen from the Customs people, law enforcement groups from the border states that have to deal with aerial smuggling and, surprisingly, from a number of State Aeronautics Commissions, many of which seem dead set on imposing new restrictions on aviation at a time when the Federal government has finally begun backing off. In early October, the FAA knuckled under to the pressure and restored 12 inch registration numbers, effective November 1, 1981. The principal reason given was the alleged need to nab law breakers . . . despite the fact that everyone in aviation knows an "N" number means little or nothing in identification of an airplane - if the operator wants to throw off the law. All he has to do is buy a set of stick-on numbers and assume any identity he wants. The EAA Museum, for instance, gets occasional fuel bills for aircraft it has had on display for years.

What we have here is a loss of freedom by the vast majority of aircraft owners because of the actions of a small criminal element . . . and a resort to police state tactics by an unimaginative bureaucracy that seems incapable of dealing in anything other than simplistic "solutions". As has been proven time and time again in the past, 12 inch police



state numbers will not aid in the identification of airborne aircraft.

Homebuilts will be exempted from the rule, and antiques can still use original type markings. Aircraft with 3 inch numbers can retain them until the airplane is repainted. New airplanes will have to have police state numbers starting on January 1, 1983.

EAA will, of course, repetition for 3 inch numbers. We urge your support. "1984" will get here soon enough - oppose "Big Brother" numbers now!

### BIG BIRD UPDATE

In the last issue of **Sportsman Pilot** we ran a picture of Quickie Aircraft's Big Bird, a distance record machine that has been under construction for a year or so. It's progress has been sporadic due to the demands on Quickie personnel to get out kits to the flood of Quickie and especially Q2 customers. The program shifted into high gear in September, however, when Q2 dealer Mike Huffman of the Tulsa area moved to Mojave to finish Big Bird. Mike, you will recall, is the craftsman who finished the BD-8, built John Denver's Skybolt, etc. An aeronautical engineer-turned builder/restorer, Mike will do a first class job, as always.

And while we are on Quickie Aircraft, here's an intriguing sidenote: during the month of August 1981, the company sold a remarkable 250 Q2 kits. As far as we have been able to determine, that was the greatest number of a single model of any type of aircraft sold that month in the entire world.

### ENGINE NEWS

Occasionally one hears a statement to the effect that there's no point in converting the air cooled VW engine for aircraft use because the car is out of production, therefore it is simply a matter of time before parts will no longer be available.

Well, not to worry, troops. The ol' Beetle is still in production in Nigeria, Argentina, Brazil and, most notably for those of us in the U.S., in Mexico. As a matter of fact, the twenty millionth Beetle recently rolled off the assembly line at VW's plant in Puebla, Mexico. The Beetle is the most-produced car in history, having long since surpassed the Model T's 15 million . . . and there are no plans to stop making them.

The VW converters have a wealth of supply sources - VW factories for short blocks and all sorts of after market companies that make hot rod accessories, especially forged cranks.

### PAPPY WEAVER, CURATOR

Pappy Weaver has spent much of his life researching and recording the history of U.S. air racing, so was a logical choice for the job of curator of the new Wedell-Williams Memorial Aviation Museum at Patterson, Louisiana. Working for the state, he is in charge of building a park near the old Wedell-Williams hangar where Jimmy Wedell built his famous racers. The foundation and floor are still there. His current project is the recovery of the remains of #44, which was dumped

into the bayou across the road from the old hangar. Divers have been at work this summer. The Museum is on a large airport (Patterson), so if you're flying in the area, drop in. Pappy's new address is: T. C. Weaver, Wedell-Williams Aviation Museum of Louisiana, P.O. Box 655, Patterson, LA 70392.

### METHANE POWERED SUNDOWNER

Beech Aircraft is flying a Sundowner on liquified methane. A modified carburetor, a pressure regulator unit and a heat exchanger were the only items added or changed to permit operation on methane - other than the cryogenic fuel tanks, themselves. The appeal of methane as an alternative to avgas is low cost, abundant supply, low cost, clean burning characteristics . . . and low cost!

Hang in there, Beech - make it work!

### NEW FABRIC FINISHING SYSTEM

Cooper Aviation Supply Company of Elk Grove, IL and the Ditzler Paint Company have jointly developed a new finishing system for fabric covered airplanes that totally eliminates the use of dope. 100% polyurethane primers and paint are used instead. The system is said to offer the following advantages: (1) Eliminates silver coats, (2) requires only 5 coats to fill the fabric weave and hide tape lines, (3) can be used on fabric, metal and fiberglass alike for perfect color match of all parts of the airframe, (4) does not blush, (5) and does not burn. Application is said to be possible in half the time of any other system and results in a typical polyurethane high gloss finish, yet is very flexible.

A free catalog and color card with 15 chips are available upon request and a 168 chip color card is available for \$3.50 . . . from Cooper Aviation Supply Co., 2149 E. Pratt Blvd., Elk Grove Village, IL 60007. Phone 312/364-2600.

### AUTOGIRO TO BE CERTIFIED

Gyroplane fans will be interested to know the Wallis WA.116 single place autogiro is going to be presented to the British CAA for type certification, after which it is to be put into production. Hoped for uses include traffic patrol, fish spotting, pipeline patrol and, of course, fun flying. The WA.116 is one of many designs worldwide that are generally of the Bensen Gyrocopter configuration and has an open cockpit tub fairing for the front end of the machine - similar to what a lot of U.S. homebuilders make and install on their gyroplanes. Of particular interest is the fact that the machine will be powered by a 75 hp two cylinder, horizontally opposed twin, built by Weslake.

### MORTON'S MEYERS

Morton Lester of Martinsville, VA is quietly adding to his collection of vintage airplanes - the latest being the mint Meyers 200 pictured here. He also has a Clipwing Monocoupe, a Travel Air 6000 (which is on loan to the Staggerwing Museum), the Keith Rider Jackrabbit (on loan to the EAA Museum), a Howard DGA-15, two low wing Aeroncas (under restoration), Aeronca C-3 (under restoration) . . . and perhaps more by the time you are reading this. He also has a very extensive propeller collection and a large library of old aviation movies.

Morton is a member of the Virginia Aeronautics Commission and is a Trustee of the EAA Aviation Foundation.

This fall he will begin construction of a large hangar on the Blue Ridge Airport near Martinsville to house his aircraft and aviation paraphernalia - in essence, a mini-museum. **Sportsman Pilot** will be down for a look next spring.

### ON THE COVER

This issue's cover shot is of Wayne Amelang's beautifully restored Parks P-2A. You'll read an article on both of them elsewhere in this issue.

Morton Lester's Meyers 200.





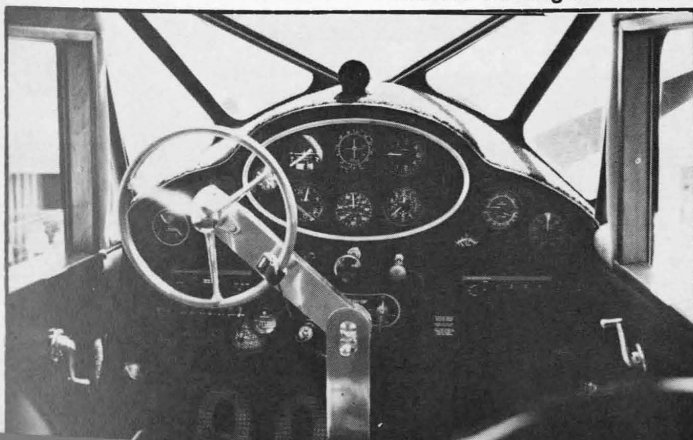
# The WACO Fly-In



Right after we finished up the summer issue of **Sportsman Pilot** and shipped it off to our printer, we were able to spend a day (Saturday) at the annual Waco Fly-In at Hamilton, Ohio, just north of Cincinnati. The weather all over the midwest was severe clear and Waco owners responded by turning out in record numbers - 41 by the time the show was over the next afternoon. We spoke briefly to Mr. Waco himself, Ray Brandy, and found him understandably ecstatic over the turnout, the quality of the restorations and all the activity the good weather was permitting. Indeed, the fly-by pattern was full all afternoon - with successive waves of Taperwings, Straightwings, Custom Cabins, Standard Cabins . . . all, wonderfully enough, bellowing with that great ol' round engine sound! I even managed to get up in one, myself. John Turgyan strapped me in his newly acquired Taperwing and we went out for a nostalgic little interlude with flying as it was 50 years ago. I often wonder on such occasions if pilots enjoyed their airplanes as much then as we do flying them today. Judging by the Taperwing, they should have - it's a tremendous airplane in any age.

Unfortunately, our travel schedule did not permit us to stay over for the evening program . . . but I thought all of you would enjoy a glimpse of the fly-in at its peak . . . in pictures. 🍷

Cabin of the Nogard ZKC-S.



Lee Parsons of Carrollton, Ohio hauling another load of passengers in his beautiful 1931 QCF-2.

91 years of combined flying time! Al Nogard, center, and his sons, Gary (left) and Allan. Al began flying in 1928. Gary flies for Delta and Allan for American.





A 1934 Waco UKC owned by Harmon Moss of Fairfield, OH.



The beginning of the tri-gear revolution? A 1938 Waco AVN-8 owned by John Cournoyer of St. Louis.



John Turgyan of Trenton, NJ and his stunning ol' Waco CTO Taperwing — built in 1930.







A just-completed VariEze by Curtis Barry of Bradyville, TN. Note the stirrup for mounting up . . . and the Long-EZ type winglets. Curtis was the person who won the "name the plane" contest that tagged Burt Rutan's push/pull twin the "Defiant". Now it can be revealed, friends — "Defiant" is the name of a popular woodstove! Curtis and a friend were sitting by one trying to come up with a name, when they happened to notice the imprint on the stove and . . . the rest is history.

John Baugh's NORD 1002 (Me. 108) was in the air almost constantly at Tullahoma . . . when he wasn't flying his Mustang.



A new Weedhopper C, the bolt-together version of this popular ultralight. Owned by James M. Bradford of Eagleville Airports of Eagleville, TN. His outfit is starting a training school for ultralight pilots, with a comprehensive ground school.

# Tullahoma's Old South Fly-in

Mark your 1982 calendars for the following dates: Thursday, September 2 through Monday, September 6 . . . then make plans to be in Tullahoma, Tennessee over that long Labor Day weekend for the second annual Old South Fly-In. If you like your sport flying enhanced by the spirited twang of a little Bluegrass pickin' an' grinnin', the warmth of an informal, friendly atmosphere . . . and perhaps a truck load of vine ripened watermelons thrown in for good measure . . . then you'll find a way to be there.

This year's event was exactly what it was intended to be - a low key get-together of EAA Chapters from Tennessee and surrounding states to sort of go through a dry run for next year's event. All the facilities left over from the previous year's EAA Convention were checked out, vendors were given an opportunity to demonstrate the services they could supply and volunteers learned

how well they could manage their assigned areas. As it turned out, the fly-in ran smoothly and those of us who simply came to Tullahoma to enjoy the weekend had a whale of a good time!

There were no air shows, no forums or workshops - just a lazy, late summer interlude for talking airplanes, admiring airplanes and flying airplanes. The fly-by pattern was open all day, every day and it was a rare moment indeed when the sky was empty. You never knew what you would see next:

- A tight diamond-and-one formation of Swifts snarling by, usually led by Swift Club president, Charlie Nelson of nearby Athens, Tennessee . . . a loose gaggle of homebuilts that might include everything from a put-putting little Quickie knifing cleanly through the air to a bunch of high-revving biplanes - Pitts, Skybolts and the like.

- A Monnett-green Sonerai might

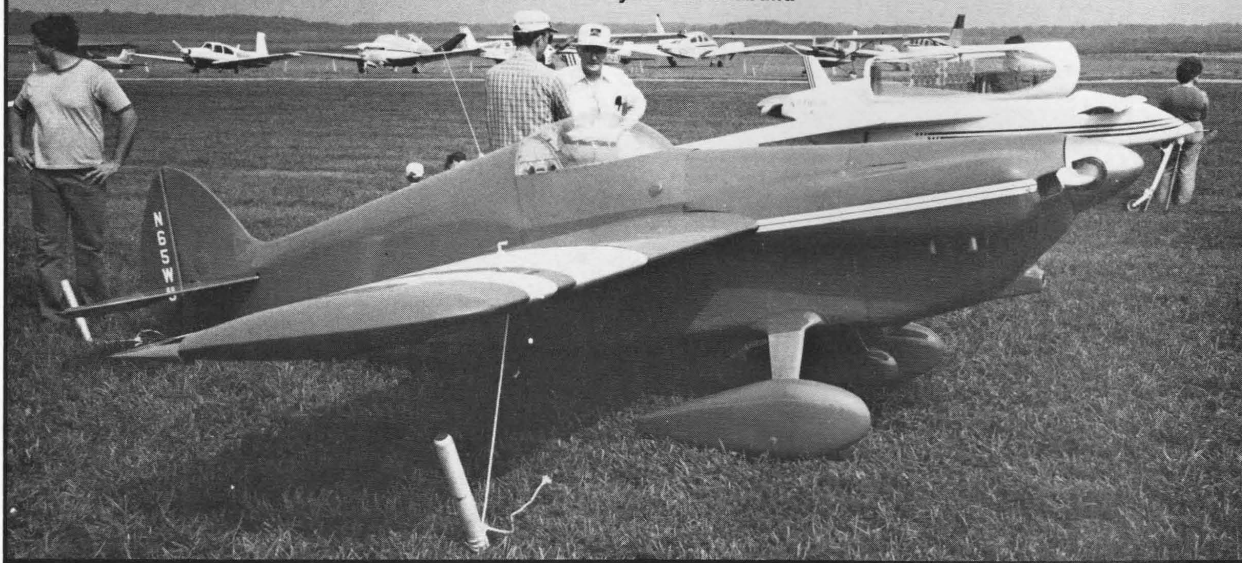
come hightailing by, wailing like a banshee . . . followed by the mellow rumble of an echelon of beautiful old round engined biplanes.

- A covey of yellow Cubs could always be counted on to provide a peaceful counterpoint to the slashing attacks of Star Wars VariEzes, obviously determined to end Darth Vader's occupation of East Tennessee, once and for all!

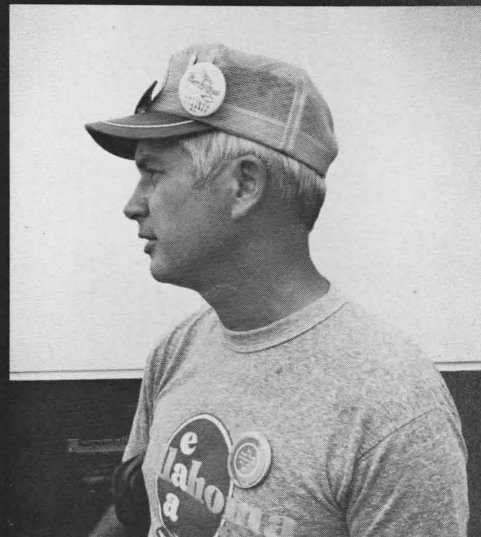
- A Breezy, its ooga, ooga horn tickling everyone's fancy . . . Ed Escallon's familiar yellow PT-19, its P-40 shark mouth grinning fiendishly at the up-turned faces below . . . John Baugh's Mustang blowing off everyone's doors, of course . . . and his smooth runnin' ol' Nord/Me. 108 that flew formation - CLOSE formation - with every other airplane on the airport before the weekend was over. One time you'd see him roaring by tucked in tightly with the Swifts or



A Cont. 0-200 powered Sonerai I built by W. Wolland Sterchi of Chattanooga, TN. Has Cherokee-like fuel tanks built into the wing leading edges. Tops out at 175 mph at 2900 rpm. Cruise is 150 mph at 2600 rpm. Empty weight is 990 pounds. Took 7 years and 3 days to build and had 105 hours TT at Tullahoma. A very nice homebuilt.



Glen McNabb's GB-1, a Navy Staggerwing.



John Parish, president of Lannom Manufacturing Co. and owner of Parish Aerodrome. He is the driving force behind much that goes on at Tullahoma.

the faster homebuilts - the next, idling along beside a Stearman with the flaps down and the leading edge slats clawing the air for the last ounce of lift.

And then, of course, there were the Staggerwings. You couldn't spend a weekend in Tullahoma, Tennessee without Staggerwings!

Concurrent with all this frivolity, the ultralights and gyroplanes were having their own fun down on Parish Aerodrome's long grass runway. One fellow in a Bensen was doing a very good imitation of Ken Brock, complete with air show smoke, and the Eagles, Quick-silvers and Weedhoppers wheeled endlessly around their vast fly-by area. There was very little wind all weekend, so someone was out thrashing his tiny two-stroker almost every time you strolled down for a look.

It was, in a word, a flying fly-in. Just plain old fun flyin' flying. A lot of kids

and girl friends got airplane rides, a lot of pilots flew their friend's airplanes and a lot of mannerly showing off took place. There was no temporary FAA tower, incidentally, yet everyone flew safely and no airplanes . . . or people . . . got bent, thank you.

#### Time Out!

Sport aviation gains a lot of new converts each year, so perhaps I should arrest the flow of this narrative just long enough to bring any newcomers up to speed before proceeding further. If you have an EAA number in the one hundred fifty thousand range, you may not even know **where** Tullahoma is, much less **what** this unique facility and state of mind are all about.

First, drag out your Rand McNally and turn to the pages depicting the great and sovereign state of Tennessee. Just north of smack dab in the middle

you'll see Nashville, the Country Music Capital of Planet Earth . . . and right down in the southeastern corner you'll see another yellow splotch that represents the city of Chattanooga. Next, run your finger up (or down) the green line (Interstate 24) connecting the two until you find the town of Manchester. Then, trace southwestward down highway 55 and, voila! Tullahoma, Tennessee, home of the Tullahoma Bunch, the Staggerwing Museum and, of course, the Old South Fly-In.

Now, if you're a good ol' Southern boy, you've gotta be thinking, "How in th' hay-ul did all these airplane doins' ever git to a place like Tullahoma, Tennessee!"

Good question.

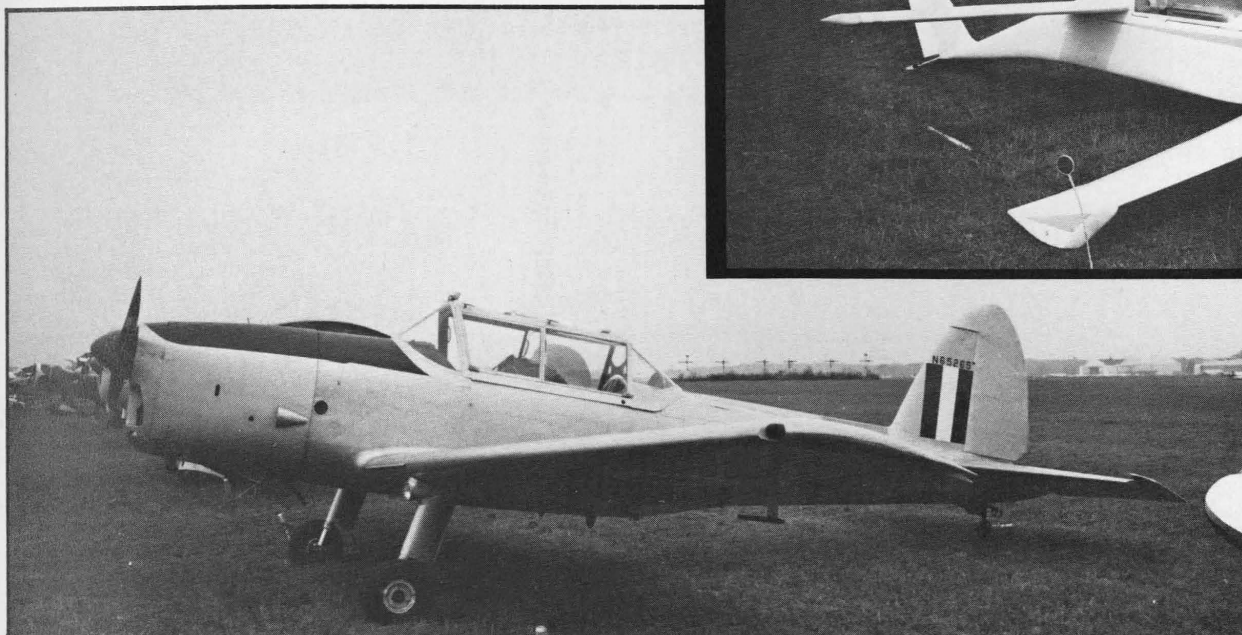
They got there, ol' buddy, because of, would you believe, baseballs and electricity.

During World War II the Army ran a

Charlie Nelson, president of the Swift Club, heading out for some Swift formation flying.



Bill Thurman of Hixon, TN built this little Quickie — and flew it frequently at the Old South Fly-In.



Dick Butler's Chipmunk . . . with a glider tow hook, of course. Dick has pretty well dominated U.S. soaring in recent years and was a member of the U.S. Team this past summer. He is a member of the Tullahoma Bunch.

huge basic training operation on the eastern outskirts of Tullahoma and the Air Force taught pilots to keep from dragging the bellies of B-24s from a big concrete triangle on the west edge of town. At war's end, the air base reverted to the previous land owners and the Army base was closed down. A few years later the government realized that aeronautics was changing to astronautics so rapidly that if the United States were to maintain its position at the head of the pack, a facility would have to be created to do the exotic basic research that would be needed to keep us there. We were in the midst of the Cold War in those days, so the research facility would be a hush-hush deal along the lines of another place up the road a piece - in Oak Ridge. Like that cradle of the atomic age, the new research center would have to be in a relatively isolated area . . .

and near a source of an immense amount of electricity. The TVA provided the electricity and the relatively isolated 40,000 acres of the old Army base fit the bill, so the Arnold Engineering Development Center (named after Gen. Hap Arnold) was built in Tullahoma. Along with it came scientists, engineers and technicians from all over the world, many of whom were pilots.

Meanwhile, down on the old air base a sporting goods manufacturer, Lannom Manufacturing, was taking over some of the base buildings to manufacture baseballs and bats. The president's name was Parish . . . and he had a son named John who was crazy about flying.

Are you getting the picture now?

Those Arnold Center aviation enthusiasts would join with locals of the same persuasion to form what came to be known as the Tullahoma Bunch (look for the bright yellow banana-shaped name

badges). A couple of them, John Parish and his wife Charlotte, owned the property on the south side of the airport, which they decided to turn into a sport pilot's paradise. Grass runways and rustic hangars were built and the Bunch was invited to move in. John and Charlotte came to love the place so much, they ultimately built a home beside one of the runways and moved their family in. Parish Aerodrome it came to be called.

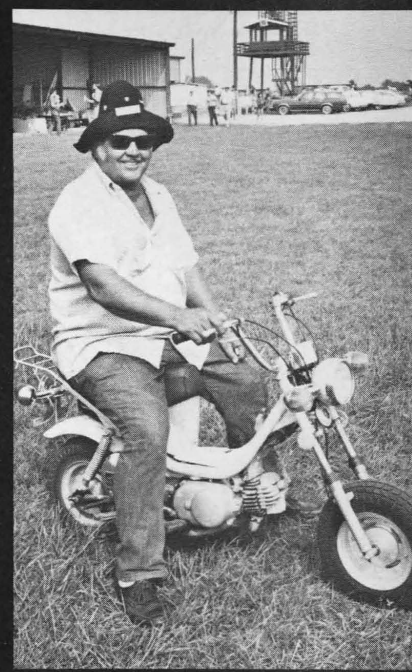
John was an antiquer first and foremost and in the early 70s he bought one of the best known sport planes in the U. S. - Dub Yarbrough's "Big Red", a G Model Staggerwing. Dub, himself, would later move to Tullahoma, bringing with him the Staggerwing Club he had created years earlier. One thing led to another and, eventually, the Staggerwingers made the decision to build a museum - and John donated a portion of Parish Aerodrome for the purpose. The rest



A. J. Smith's all-conquering AJ-2 at Tullahoma.



A beautiful F-17D Staggerwing restored by Swanson Poer of Greensboro, NC. On display in the Staggerwing Museum, Swanson takes it out for local flying when there's a fly-in at Tullahoma.



Jimmy Snyder  
... alias The Ragman.

is aviation history. The Staggerwing Club holds its international convention at Parish Aerodrome every other year or so - alternating it with visits to the Beech factory in Wichita and an occasional foray to the West Coast.

Concurrent with all **this** activity, the Tullahoma Bunch had become an EAA Chapter (458) and had created a fun fly-in appropriately named the Tullahoma Happening. These events were so successful that by the late 1970s, they were growing beyond the capability of a local chapter to host. At that point, John Parish approached EAA Headquarters in Wisconsin with a proposal to expand the event into an EAA sponsored national Fall Convention. His plan met with approval and the first Tullahoma Convention was set for early October of 1979. That fly-in and the 1980 edition were extremely successful, but in the Spring of 1981 EAA Headquarters

announced its withdrawal from sponsorship of that year's edition, citing the demands placed on its staff by the impending move of the organization to new quarters at Oshkosh, Wisconsin.

The two Tullahoma EAA Conventions had brought about the formation of the Tennessee Sport Aviation Council, which originally was composed of all the EAA Chapters in the state, but later came to include those of surrounding states. Members of these Chapters provided the expertise and manpower to run the Convention . . . and were sort of left hanging out on the line when the event was cancelled. A few months later, however, they met at a fly-in in Gainesville, Georgia and decided to assume control of the situation on their own and put the Tullahoma fly-in back on the calendar. It would be called the Old South Fly-In and would be held over the Labor Day weekend.

As I've already related, this year's fly-in was the very successful trial run for 1982. So encouraged were the participants, they voted to make the Old South a permanent annual affair.

So . . . now you've got it all. The fly-in will be publicized next year, so you'd better start making plans **now** to attend.

#### Staggerwing Museum

When you arrive at Parish Aerodrome, one of the things you **must** do is tour the superb Staggerwing Museum. It's located right off the end of the Aerodrome ramp, just a few paces from Wayne Amelang's hangar (see the story on him elsewhere in this issue). The "museum" actually consists of three buildings, the Louise Thaden Library, the Walter H. Beech Hangar and the Olive Ann Beech Gallery and Chapel. The purpose of the entire complex is to honor the persons for whom the facilities are

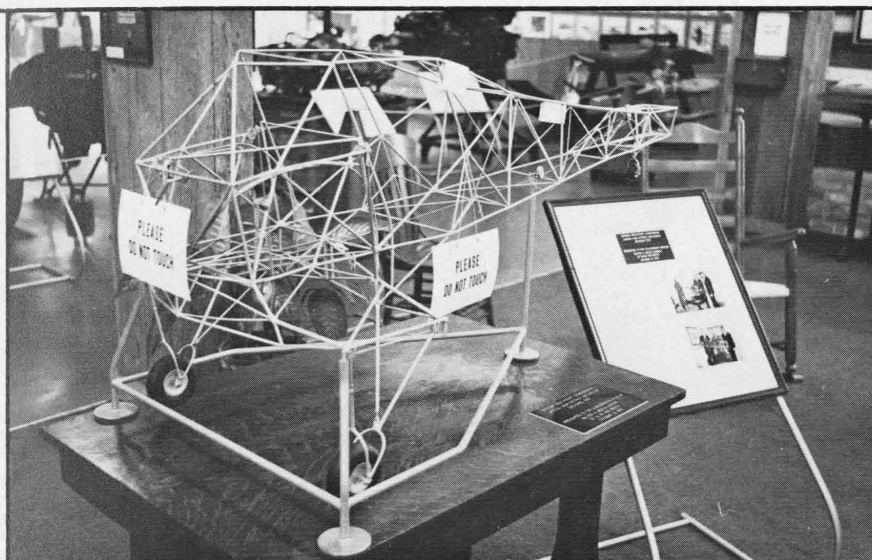




The Walter Beech Hangar . . . in silhouette.



Mattie Schulz, Executive Secretary of the Staggerwing Museum.



The original Staggerwing retract mechanism model. Designed in 1933 and presented to the Staggerwing Museum by Olive Ann Beech in October of 1975.



Louise Thaden's two most famous trophies, the 1936 Bendix Trophy (top) and the 1929 Transcontinental Air Derby (bottom). The window/trophy case overlooks the Staggerwing Museum.

named and to preserve the history, lore and a collection of noteworthy artifacts - including aircraft - concerning the Beech Model 17, or Staggerwing as it is universally known, and the earlier Travel Airs.

The first of these facilities, the Louise Thaden Library, was dedicated in 1974. Louise was still with us then and was there to receive the honors bestowed upon her that day. A restored log cabin, the Library today contains many of Louise's personal effects and many of her trophies and awards. Most notable are the 1936 Bendix Trophy and the 1929 National Women's Air Derby trophy - sealed in a glass window overlooking the interior of the Walter H. Beech Hangar. The latter was dedicated in 1975 and is the actual "museum" in the complex. It contains a Travel Air 4000, a big 6000B and a number of Staggerwings - a 1935 B-17L, currently the oldest flyable

Staggerwing (an older one is now under restoration), a couple of F-17Ds (1938 and 1939 models), a D-17S and a 1946 G-17S, one of the last 20 Staggerwings built.

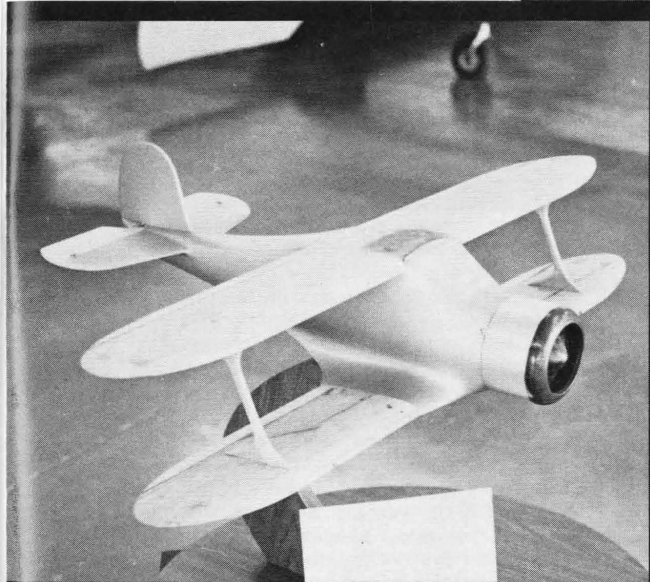
In addition to the aircraft, the Hangar and the lobby area that now connects it with the Thaden Library are filled with photographs and artifacts from the Travel Air/Staggerwing factories. One large table, for instance, contains plastic sheathed 8x10 copies of all the factory photos of Staggerwings . . . absolutely staggering, if you'll pardon the pun! One portion of a Hangar wall contains what at first glance looks like a grade school coloring book exhibit. Reading an accompanying plaque reveals, however, that these are the actual 3-views Staggerwing purchasers used to design their custom paint jobs. One look at this display should rattle the cages of latter day "experts" who

seem to think that **all** aircraft of the 20s and 30s rolled out the factory door with "factory" paint schemes. It's simply not true . . . and this priceless exhibit proves it.

A lot of Staggerwing goodies somehow survived the years to end up in the museum: the model on which the retractable gear mechanism was worked out, the wind tunnel model, etc. There are Travel Air treasures, too - including the tail section of the Mystery Ship in which Doug Davis trounced the military teams at Cleveland in 1929, plus its racing wings which were later used by Frank Hawks. A Mystery Ship replica is nearing completion in another building on Parish Aerodrome.

There's more - much, much more. Enough to keep one there for days looking at all the pictures, reading all the display boards, etc. Of all the aviation museums around the U. S., the Stagger-

A bust of Walter Beech gazes out over the accomplishments of a lifetime.



The original Staggerwing wind tunnel model.



The new Olive Ann Beech Chapel and Gallery.

wing Museum stands out as being one of the most effective. It does what it was originally intended to do: it tells the story of the Staggerwing. It is not large by, say, National Air and Space or even EAA Museum standards, but it serves its purpose extremely well. I can't say more for any museum.

The Olive Ann Beech Gallery and Chapel was dedicated this past June and is a separate building located right beside the others. All are beautifully landscaped and are maintained in spotless condition.

Tullahoma is centrally located in the eastern U. S., so if you fly or drive to any extent, sooner or later you will be in the area. The Staggerwing Museum is a "must" stop. If you are flying, you can land and walk to it; if you're driving, just ask anyone in town where the airport is. If you're reading this, you are already a confirmed aviation buff and will make it a special point to visit . . . won't you?

And while I'm making this sound like a travelogue, consider the vacation possibilities of the area. The Great Smoky Mountains, Chattanooga and its Civil War battlefields, the Space Center at Huntsville, Alabama, the Atomic Energy Museum at Oak Ridge and, of course, the Grand Ol' Opry in Nashville are each just a morning's drive from Tullahoma. Jack Daniel Distillery and Arnold Center tours are about 15 minutes away from the airport. Even those members of your family who . . . gasp! don't like airplanes will have lots to do.

#### Watermelons . . . And Such

Now, about those watermelons. Dale Gold of Chattanooga's Chapter 150 grows 'em and it has become something of a tradition at the local EAA get-togethers for him to send in a load for all to enjoy.

On Sunday afternoon . . . a hot Sunday afternoon . . . the call came over the PA system to "come and get 'em!" Jimmy Snyder was there in one of the hangars with a big butcher knife whacking away and within minutes everyone who wanted some was up to his ears in red and yellow meat watermelon. There was no decorum here . . . just good eatin'!

The watermelons were just an added homey touch to a fly-in that already had the atmosphere of a family reunion. That's really what the Old South Fly-In is, I suppose, because those of us who share a love for flying and airplanes are a "family" in many respects.

As we said in the beginning, they're going to do it again next year - same place, same Labor Day weekend. If you need more information, write the Tennessee Sport Aviation Council, P. O. Box 550, Tullahoma, TN 37388.

Ya'll come, now! 🍷





# The Biplane Revisited

## The Biplane!

Richard Bach's ol' Parks P-2A . . . his personal time machine for reliving those thrilling days of yesteryear . . . of 1929 . . . of sleeping under dew-dappled wings . . . of barnstorming through rustic mid-America.

Yes, folks, the Biplane is alive and well in Tullahoma, Tennessee.

If you've read Bach's **Biplane** and **Nothing By Chance**, you know he played barnstormer for keeps. Ol' NC499H was "rode hard an' put away wet." The main gear was knocked off repeatedly and new ribs and wing tips were changed about as often as socks. Somehow, the ol' girl kept coming up for more . . . until one day Richard found he needed to sell her and move on to other lives and other times.

499H ended up in Newnan, Georgia in the hands of two Eastern pilots. They had plans to restore the airplane but for a variety of reasons, never got around to it. The Biplane languished for seven long years before being rescued from its seemingly inexorable drift into oblivion. In that darkest hour before dawn, the doors were flung open to expose its rusty old bones to the first light of a new day - a new life of ease and glorious "retirement." Standing there with a bill of sale in his hand was the Destined Owner, the one man among men who **SHOULD** have become the owner of the Biplane at that particular moment in time.

Nothing by mere chance had ever happened to this airplane, Richard Bach had maintained. It had always led a sort of charmed life, he passionately believed. No matter what misfortune befell it, there ultimately would be re-

vealed some reason, some particle of a greater design that fate had in store for it . . . usually for the best. Now, enter Wayne Amelang and, again, it had to be . . .

Nothing by chance.

Wayne grew up around Ottumwa, Iowa . . . longing to fly. In 1939 he left to pursue his dream with the Army Air Corps, enlisting at Chanute Field in Illinois. From there he was sent . . . by chance?? . . . to Parks Air College to study aircraft mechanics.

After tours at Barksdale in Shreveport and Hunter Field near Savannah, Wayne was ultimately posted to the European theater to help wage the great war of his generation. A hangar chief in an air depot group, he was for a time shuttled all over - "England, North Africa, Italy and all points between," he recalls. For the last 8 or 9 months of the war in Europe, however, his fortunes changed. He was made the crew chief/flight engineer on General Ira Eaker's personal B-17. Finally, he was getting to fly, even if not behind the wheel.

Following the cessation of hostilities, Wayne tried to re-enroll at Parks Air College to study engineering, but found the place booked solid. Undismayed, he simply headed south and signed on at the Spartan School of Aeronautics in Tulsa. After graduation, he went to work for Convair in east Texas . . . and did, in fact, finally realize the dreams of his Ottumwa years. He soloed a J-3 Cub . . . and a little later bought his first airplane, a 1939 50 hp Luscombe.

A better job with McDonnell in St. Louis ended the Texas idyll . . . and in 1950 fate decreed still another move to Tullahoma and a job at the vast Arnold

Research Center. He's been there ever since.

Throughout his working career, Wayne has been an engine test engineer. He's done it all - from the early rumblings of the jet age to the very latest rocket engines, he has been fortunate to have been at the exciting, cutting edge of propulsive technology. "Any kind of jet - ram jets, pulse jets, pressure jets, turbo jets - and rockets. We went through every kind of rocket propulsion there was for the moon program . . . and I worked on the B-1 bomber engine for 7 years. Now we are working on the MX program."

That was during the work day.

At night and on weekends, Wayne eased into **his** personal time machine and worked backwards over the years. His workshop took him back . . . back to the days of his military career, to the Model A . . . to biplanes. His hobby was rebuilding ancient engines . . . and, out of necessity, the vehicles in which they belonged. He lovingly restored a Model A coupe - with rumble seat - and has it to this day, and, of course, a lot of airplane engines.

Along the way, Wayne had fallen in with a crowd called the Tullahoma Bunch. A mix of natives and imports such as himself (and mostly fellow employees at Arnold Center), they were attracted by a common bond - flying. Especially flying old airplanes. The Bunch became a sort of informal cooperative. Each member, it seemed, had a particular aeronautical skill, so when someone hauled home a rusty old direct, the airframe specialists just naturally gravitated in to start cleaning and sanding, pounding and welding . . .



after which the dope and fabric types began shaking the paint cans. The engine invariably ended up in Wayne's shop.

The Bunch tightened considerably when one of them, John Parish, built a sport pilot's paradise immediately adjacent to the old Tullahoma airport (an ex-B-24 base) . . . and invited the rest to share it with him. Huge rustic tin roofed hangars of solid oak were built atop a gentle slope overlooking two beautiful grass runways . . . a picture book setting for sport airplanes and sport flying.

For a time Wayne had owned a Fairchild 24 but it was sold in favor of a membership in a local flying club equipped with a T-34. When the Tullahoma Bunch came into being, however, the old airplane stirrings began anew. A Ryan PT-22 . . . from his World War II days . . . became a permanent member of the Amelang household, getting a complete restoration to trophy winning condition. It took its share, too, in the years that followed. After it came a Piper J-2, but just as the restoration began, the Parks became available, so the Cub went . . . and still is . . . in the rafters of his hangar at Parish Aerodrome. The Parks, after all, was a product of Wayne's old alma mater, Parks Air College.

The Parks, as delivered from Newnan, was in sad shape. A spar had to be spliced, about a dozen ribs had to be replaced and half the rest needed some repair. The fuselage was stripped down to bare bones, sand blasted and probed for internal corrosion. A good bit of the engine mount had to be cut out and replaced with fresh tubing and the whole lower cluster in the landing gear had to be rewelded.

All new cowling was fabricated, much of it neatly louvered, the cockpit panels were re-done in wood (except for the insert that actually mounts the instruments) and all new stainless steel flying wires were purchased . . . at a terribly high price.

When it was time to start fitting the ol' girl with a new wardrobe of Grade A cotton, the local experts, Gene Hood and Bobby Graves, were waiting in the wings to help out. After the usual assault with the dope brush and rib stitching needle, the whole nine yards (and then some) was slathered with butyrate dope. Insignia Red ("Tennessee Red", I like to call it!) and Diana Cream butyrate . . . and a lot of sanding and rubbing finished the job.

In the meantime, Wayne had been all over - and inside - the Wright J6-5. It was completely torn down and thoroughly checked for wear and damage. He ground the valves and the seats, installed ten-over pistons, rebuilt the mags and carburetor and a myriad of other, smaller items. The bottom end was found to be in like-new condition. Properly cared for, it will never wear out, Wayne believes.

The wheels and brakes were original equipment and required only a modest amount of refurbishment. The tailwheel that replaced the original skid had been fitted in Chicago in 1941 . . . in, of all places, Matty Laird's shop. (Think Wayne doesn't treasure **that** log entry!)



Finally, on June 14, 1977 the Detroit Ryan Speedster, Model Parks P-2A, Serial Number 101, licensed NC499H ceased being a relic and an FAA statistic and once more became an AIRPLANE. Just 16 months had elapsed since Wayne Amelang had begun working his magic on her bent and busted remains. Yet, as the old Wright's thunder echoed through the Tennessee hills and the Parks took to the air again, it was very likely in the best . . . certainly the best **looking** . . . condition of its entire existence. And she would stay that way. No more working days and rough fields and dust and grime - no, the Parks had been turned out to pasture to live out its days in genteel "retirement." Weekend pleasure flying and an occasional cross country jaunt to fly-ins . . . to be admired and honored with shiny plaques and trophies . . . became the leisurely routine.

In late July of that year, 1977, Wayne flew the Parks to Oshkosh and the EAA Fly-In. The scoring for Grand Champion Antique was close, very close, between

the Parks and Forrest Lovley's beautiful and uncompromisingly authentic Kari Keen Coupe. In the end, the Kari Keen was declared the winner and the Parks the runner-up. Forrest and Wayne are good friends and the "competition" between their airplanes was really on the score sheets of the judges. Wayne was happy for Forrest and pleased the Parks had been so well thought of by the folks at Oshkosh.

Somewhere, however, someone was probably attempting to suppress a little smile at that particular moment. Things have a way of working out - for the best and for reasons not always apparent in the beginning . . . remember? A few weeks later, Wayne flew the airplane to Ottumwa . . . and nearby Blakesburg . . . for the AAA Fly-In. There, where it all began, where he had dreamed his dreams of flight, where, in fact, he had first become aware of the Parks, the Biplane was declared Grand Champion. Obviously, that's where it was **supposed** to happen.

Nothing by chance, you know! ☺



# It's a "Forwarder" Friends

Reid Lassetter



In 1942 the U. S. Army Air Force placed an order with the Fairchild Airplane and Engine Corporation of Hagerstown, MD for 512 UC-61A "Forwarders", a somewhat militarized version of the popular civilian Fairchild 24W41A powered by the then new 165 hp Warner radial engine. One of those aircraft, military serial number 4314613, was built the following year and apparently soldiered successfully until war's end when the Reconstruction Finance Committee put it up for sale on the civilian market. It became NC46499 and quickly assumed the guise of a civilian 24 . . . perhaps permanently had it not been for the perseverance of one Reid Lassetter.

Reid, who lives at 504 Thomas Drive in Rossville, Georgia (a suburb of Chattanooga, Tennessee) and is a member of EAA Chapter 150, bought the remains of 46499 in 1975 and hauled it home in four truck loads. It had been disassembled by the previous owner for rebuild, but the restoration had never been started.

In checking the logs, Reid found the airplane had been used by the military in World War II, but he assumed it to have been a civilian model that had been impressed into service. At any rate, he had only recently been involved in the restoration of Glen McNabb's Staggerwing as a Navy GB-1, so he thought it would be equally neat to restore the Fairchild as a UC-61, a "Forwarder" as the Air Force called it. The decision made, he set about acquiring old military tech orders and whatever else he could lay hands on to determine exactly how the airplane had been configured and painted in 1943.

Once work on the airplane began, a number of somewhat puzzling discrepancies began popping up. Things just didn't match up to what was called out in the overhaul manuals for civilian 24s. The brakes, master cylinders,

the instrument panel, fuel tanks, etc., were different in various respects. When lightning arrester braid was found in the wings and the framing for cabin skylights was discovered, the light quickly dawned. This was a **military** 24, a UC-61A built to USAAF specs. Things were easier after that because Reid now knew what he was dealing with. The information also caused him to redouble his efforts to learn more of the history of the airplane. He had complete logs, 337s, etc., back to 1945 when the airplane was sold on the civil market, but nothing before that. He had already learned what the paint scheme was supposed to look like, what 1943 markings were like, etc., but he also had found the plane's military serial number was supposed to be painted on the vertical tail. He could make up a number or use one found on a photograph of the 1943 era, but that wouldn't do. Reid wanted the number of his airplane. He approached the military but ran into what appeared to be insurmountable obstacles. Finally, however, he hit paydirt. The old RFC records carried scant information on the Fairchild, but one thing they did include was the military serial number - 4314613, he learned to his great satisfaction. With that last piece of info, Reid could be assured of an authentic exterior.

This, however, was as far as he wanted to go with authenticity. He wanted a comfortable, attractive custom interior and modern nav/com equipment to make the airplane more useful and more enjoyable to fly. Besides, he could never be 100% authentic with this airplane, anyway. In 1947 the 165 Warner had been replaced by a 185 and an Aeromatic propeller. This improves the performance of the airplane considerably . . . and Reid wasn't **about** to give that up!

The upholstery, then, was done in a nice soft leather - a specialty of Reid's.

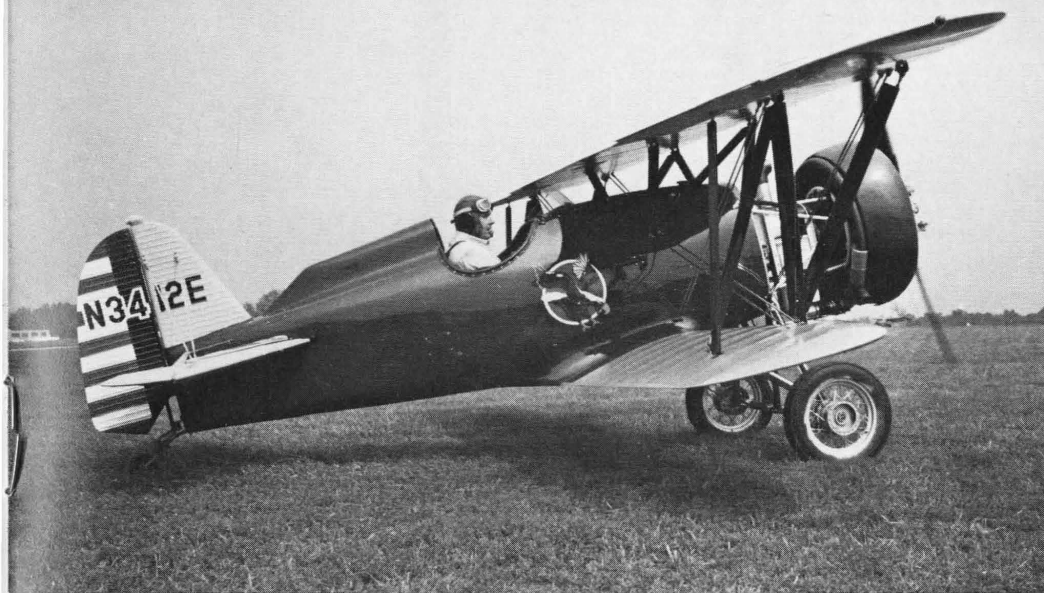
The panel was fitted with dual 720 nav/coms, a transponder, audio panel, marker beacon, etc., etc. This particular airplane also has approval for an increase in baggage weight capacity to 180 pounds.

It took about 3 years of sporadic effort . . . and a lot of help from his friends . . . for Reid to get the Fairchild flying. He's a communications and computer technician for Western Electric, and they had him out on the road frequently during the restoration. Perhaps sensing his frustration, his Chapter 150 friends decided to give him a little push. Reid flew in from neighboring Kentucky one weekend to find a work party had been held, during which the gang had assembled the wings and pretty well had the airplane together for him. This, plus the continuing assistance of Jimmy Snyder and Wade Young, got him over the hump and, finally, in 1978, the ol' bird took wings once again. Reid has put a little over 300 hours on it since and says for the most part it has performed flawlessly. It is a high maintenance airplane from a modern standpoint, but mostly with respect to little things - loose screws, sliding inspection plates, etc.; about what you have to expect from a 38 year old fabric airplane.

He loves flying it. "Like any old Fairchild, it's an extremely smooth, stable aircraft," he maintains. And with its UC-61A exterior, it's different. It stands out on the show line at fly-ins and quite frequently attracts a "hey, I flew those in World War II" reaction. Lots of fun, Reid says.

Reid is familiar to those of you who camped at the two Fall Conventions at Tullahoma. He managed the camping operation . . . and did so again at this year's Old South Fly-In. He looks forward to seeing all of you back next year. ☺





# The 700 Weekend P-12

Any time the sound of a round engine rumbles down from on high, faces turn upward. You could easily get a sore neck at a place like Tullahoma . . . but it would be worth it. Some pretty exotic machines from the days of yore inhabit the place and some equally interesting ones visit on occasion. One day we heard a basso rumble and looking up, spotted the unmistakable planform of a Boeing P-12!

When it landed and began taxiing in, it was quickly obvious the pilot was looming a little large in the cockpit - that the plane was a scaled down version of the P-12E. After he shut down the engine and climbed out, I said howdy and found the owner/pilot to be Andy Reid of Rt. 2, Bon Aqua, Tennessee 37025. The airplane was indeed a scaled-down P-12, a 3/4 scale P-12E, to be precise. It was his own project, start to finish, and had taken 13 years - "a 700 weekend airplane, I like to tell folks," he said with a laugh. At that, it still wasn't finished. As the picture shows, a gaping void existed in the fuselage skin between the firewall and the engine. "Flew it for the first time on April 25 and have just been too busy this summer to finish it up. I'll do it this winter, though, and I hope to have it at Oshkosh next summer."

Asked for some construction detail, Andy obliged by pointing to the fuselage skins - "Fiberglass shells attached to aluminum stringers on a typical steel tube structure." They had been made, he said, by decking the fuselage with 3/8" thick pine to form a one-shot male mold. A very thin plastic drop cloth was attached to it to serve as a parting agent for the glass and epoxy laid up over the mold. "Worked beautifully," he found. The method had been described in an old issue of **Sport Aviation** just as he was beginning the project.

The wings are typical of homebuilt biplanes - all wood and fabric covered. The real P-12s had deeply corrugated sheet metal covering the ailerons and tail surfaces. Andy covered his with

fabric and simulated the corrugation by gluing on half round strips of balsa and covering them with finishing tapes. From a few feet away, the illusion is quite convincing.

What really makes this an exciting little fighter look-alike is the engine - a 165 hp Warner radial. It looks and, more importantly, **sounds** like what you imagine the real thing to have been. A lot of replica builders cleverly disguise flat engines in radial cowlings - but you can't simulate the **sound** of a radial! This one swings a F-220 Aeromatic, which, with its counterweight arms and hub, looks more natural on a radial than a plain wood or metal fixed pitch propeller. More like an old Ham Standard, for instance.

The landing gear is a mixed marriage that was definitely made somewhere other than in heaven. The struts were salvaged from a PT-22, lengthened about 2 inches and turned around for mounting on the P-12. The wheels are from the front end of a Farmall C tractor! Wheel covers have been made but weren't installed in time for the Old South Fly-In.

There were 19.5 hours on the tach when the little bird landed at Tullahoma . . . and what with all the fairings missing, Andy was understandably reticent about performance figures. He has a design goal of 125 mph for cruise and was close enough to that to feel assured of making it once the airplane is finished. It climbs at 750 fpm now and also should improve on that in a cleaned-up configuration. Empty weight is 1325 pounds and gross is 1700.

When I see a replica, I'm always interested in why that particular airplane was chosen over the hundreds of other possibilities. Andy, I learned, is an ex-Air Force instructor pilot. During the Korean War, he taught in T-6s, T-33s, flew F-80s, etc. Why would he leap frog that era . . . and World War II . . . all the way back to the early 30s and the P-12? Well, it's a familiar story to EAAers - the P-12 was THE

fighter when he was at the most impressionable period of his youth and, in addition, he won a model airplane contest with a P-12 he had built . . . so - need I say more?

When Andy began thinking about building a biplane, he compared the dimensions of things like Smith Miniplanes and found them to be in the ball park with a scaled down P-12. They were close enough, he believed, that if he had the plans for a real P-12, he could adapt its dimensions to the structure and aerodynamics of a proven homebuilt biplane. In an attempt to get started, he wrote Boeing, explaining what he intended to do and requested drawings. To his pleasant surprise, Boeing was most cooperative and supplied him with exactly what he desired. He received micro film copies of the old drawings for just the cost of copying them.

Aware that airfoils of full size airplanes don't always work well when scaled down . . . Reynolds numbers and all that . . . Andy originally considered the NACA 4412. One day he compared it to the Boeing 106 section, however, and was surprised at how similar they were. In the end he decided to go with the Boeing airfoil . . . and it has proven to be a good one for his airplane. He also is using scale thickness for the tail surfaces.

A consulting engineer in the heating and air conditioning field, Andy Reid builds and flies airplanes as a hobby these days. When this little bird shows up at Oshkosh next summer, he is going to get a lot of encouragement to get into the homebuilt kit business . . . because if the fiberglass shells over the basic steel tube fuselage can be designed to look like a P-12 with its Panama headrest, then it would involve just minor work on the mold to produce a F4B for the Navy and Marine types. And then, with a tuck here and extra bulge there, how hard would it be to do a Gloster Gladiator . . . or a Fiat CR.42 . . . or a Curtiss Hawk . . . or . . . !

# How Eze?



## ...Is The Question

*Over 200 VariEzes are now flying . . . but you have to be an experienced surf board shaper or a prize winning KR-1 builder to get a really nice job, right?*

Wrong.

*You see a lot of Ezes at fly-ins . . . but you have to be an ex-Air Force fighter jock to safely handle one, right?*

Wrong again.

Sure, it helps to have the building skill of a Fred Keller and the Century Fighter experience of a Dick Rutan to build and test fly ANY kind of homebuilt, but an exceedingly good accounting is possible from a far less experienced builder/pilot. Consider, for example, the case of a young insurance salesman from Knoxville, Tennessee by the name of Don Jones.

● When he began his VariEze, he had never built anything more sophisticated than a radio controlled model airplane.

● When he made the initial test flight of his Eze, he was essentially a 60 hour Cessna 150 pilot. And not only did he successfully test fly the airplane, he would later do the flutter testing, opening the envelope to 265 mph, true!

● This year at Oshkosh . . . and despite the fact that the Eze was not quite finished (no wheel pants and lacking some cockpit finishing detail) . . . Burt Rutan was so impressed with Don's workmanship that he presented him with a special trophy.

I had the opportunity to carefully inspect N300DJ at Tullahoma and I must say I fully agree with Burt's evaluation. On the exterior, Don has done a job that places him right up there in the rarefied atmosphere of the Fred Kellers and the Norm Rosses. The interior of the cockpit is very well done, but Don simply has not had time to get into the glove leather upholstery and walnut veneer inlay

exercises that put the 1979 and 1980 EAA Grand Champion Ezes in a class all their own. Like so many builders before him, Don was pushing hard to make Oshkosh and some purely decorative items didn't make his deadline. Nevertheless, he came home from Wisconsin very much encouraged. A lot of very knowledgeable people told him he had the makings of a top trophy taker. Fred Keller, himself, was gracious enough to pass along some valuable tips . . . and a lot of encouragement.

So, how did he do it? According to Don, by the simple expedient of following the VariEze building and test flying instructions **to the letter**. Perhaps . . . but while that statement contains some well-deserved plaudits for the very complete RAF instructions, it is nevertheless made with a liberal dose of Old South modesty. When pressed on particular details, Don was forced to admit that there **were** a few areas that were not-so-Eze . . . things that required quite a bit of study and a false start or two before he came up with a part that met **his** standards. The latter is, of course, the key to most really superb airplanes. We see Grand Champion VariEzes and we see sloppy ones, just as we do with all the other designs. The difference is the diligence, the high **personal** standards of the builder.

Don started his VariEze in the spring of 1977 and made the test flight on June 14, 1981. Of those 4 years, he figures he has 2½ to 3 years of actual part-time work on it. There were periods when he could not devote time to construction and had to store the parts and pieces temporarily. The Eze was built in a 2-car garage and as components were completed, they were stored in the family's living room. The biggest problem, Don recalls, was temperature control during

the glass/epoxy lay-up stages. 75° F is the ideal temperature for this work, but 75° to 85° will do - and is the range where most real-life work is done on composite airplanes. Luckily, Don did not experience any sensitivity to the epoxy during construction of his airplane. Interestingly, he found making the few metal parts the most difficult aspect of the entire project . . . that and simply having the patience to see a part through in all its steps, once started. He was aided in this, he pointed out, in that the lay-ups **MUST** be completed once started - otherwise, you have a candidate for the scrap heap on your hands.

Don's kit of materials and plans were among the early ones and thus were subject to all the VariEze changes and additions over the years - ailerons, canard modifications, belly flap, wing cuffs, etc. All were incorporated as RAF sent them out, so that Don's airplane is a thoroughly up-to-date Eze.

The beautifully smooth finish on Don's airplane is the result of meticulous filling, sanding, profiling, sanding and more sanding - then a spray coat of Ditzler catalyzed enamel. This was Don's first attempt at spray painting, so he must be a quick study . . . or the Ditzler enamel must be easy to work with . . . or perhaps a bit of both.

Now, to perhaps totally shatter the illusions of those of you who have imagined the VariEze to be an unreasonably "hot" airplane, you should at this point be told that when Don began his project, he was not a licensed pilot. He was learning to fly concurrently with the building of the Eze and did not get his Private ticket until June of 1980, a year before test flying the airplane. As we indicated earlier, he had accumulated a total of just 60 hours by that time, almost exclusively in the Cessna 150.



Not only that, but in the three months immediately prior to the test flight, he didn't fly at all - he was caught up in the familiar, night and day get-it-ready-for-Oshkosh syndrome.

When the moment of truth did arrive, however, Don shifted mental gears and settled into what I consider to be an exemplary routine of prudence and self discipline. Since there really isn't anything exactly like a VariEze in which to get checked out prior to test flying one, Burt Rutan recommends that his builders get time in several aircraft - a taildragger for ground handling expertise, something with a stick and tandem seating to accustom the pilot to sitting on the fuselage center line and control by something other than a wheel . . . and with the right hand rather than the left, something with a higher rate of sink than Cessnas, etc. All this and, if possible, some back-seat time in someone else's VariEze.

Don followed the recommendations right down the line. First, he hired himself an instructor and went out in a 150 and shot a bunch of touch and goes, just to shake off the effects of his three month lay-off from flying. Next, he took dual in a Citabria . . . which he found to be a lot of fun . . . and then began a back seat check-out in a friend's VariEze. He actually did some stick-only landings (VariEzes don't have rudder pedals in the rear seat) to get used to the attitude or constant rate-of-descent type approaches most VariEze pilots employ. Later, he would repeat this in a second friend's VariEze to better prepare himself for the minor differences between individual airplanes of the same type.

Very significantly, all this flying was accomplished over a period of about a week - which the military has been proving for decades is the most efficient way to train.

Initially, N300DJ was taken to a mile long runway in Morristown, TN for taxi testing. Don started off slowly, checking out the landing gear track, steering by differential braking, possible nose wheel shimmy, etc., eventually working up to runs with the nose wheel off the ground - "canard lift-offs" as Burt calls them. By the time he was ready to "go for it", Don felt completely at home in his cockpit . . . so the first flight was almost anti-climatic. "No problems, absolutely uneventful," he recalls.

At first, his landings were of the nose high, rate-of-descent variety, right down to touchdown. With experience, Don says he has refined his technique to include a last instant semblance of a flare . . . but never enough to raise the canard above the level of the horizon. He stabilizes his speed in the pattern at 95 to 100 mph, slows to 85 on base and goes over the numbers at about 80. Touchdown is at 70 to 75. (If you've flown 'em, you know these are about the same numbers you'll see landing the average 4-place retractable.)

Several things were accomplished during the FAA mandated test period . . . before passengers were carried. A take-off was made with ballast to the 1100 pound gross weight limit - with, incidentally, a ramp temperature of 100° F - with no adverse handling experienced. The take-off roll stretched out three or four hundred more feet and the rate of climb was down to about seven to eight hundred feet per minute, but that was all. Single place, the airplane will climb at an initial rate of 2,000 fpm, Don says, and will hold that for a respectable amount of time.

Strapping on a parachute, Don flew his own flutter tests. Entering a shallow dive at 9,000 feet, he made successive runs down to 5,000 feet, increasing terminal speed each time by small incre-

ments until he ultimately reached 265 mph, true. No indication of flutter, incipient loss of control . . . or anything else adverse . . . occurred.

"The stall characteristics of the plane are 'by the plans'," Don says. "There is absolutely no tendency to depart at full aft stick, just a mush that you have to see on your rate of climb dial to be aware of." ("Depart" is latter day terminology for the stall "break" us graying eagles grew up with . . . a term burned into our memory when that rotten little J-3 changed ends so violently it plastered the contents of our shirt pockets firmly on the ceiling of the cabin!) The Eze (at least a straight and true one like Don's) will avoid the "departure" in turns - yes, still with full aft stick - and will fly right out of that condition with the sudden application of full throttle. No snapping on its back nonsense.

"The speeds are quite phenomenal, I think, for a hundred horsepower. Without wheel pants and a spinner, the airplane will true out at 190 mph. With them, I feel I'll definitely have a 200 mph airplane," Don says with obvious pride.

I'm certain all of you realize it is somewhat redundant to state that Don Jones is happy with his VariEze . . . but, there, I sneaked it in anyway, didn't I! A native of Chattanooga, he is a graduate of Middle Tennessee State University in Murfreesboro. He taught school for one year, then went with Allstate and has been in the insurance business for the past 11 years.

So, there you have it, folks. Once again, intelligence, perseverance, prudence and self-discipline win out over lack of initial experience. Don Jones did it . . . and, similarly motivated, so can you.



# Dub's Cub



The J-3 Cub is a great instrument of democracy. Everybody loves 'em, everybody wants one - rich man, poor man, 747 captains and student pilots. Even people who don't fly want them as investments.

Take Dub Yarbrough. Here's a guy who's flown everything - racers, Lockheed's heavyweights, anything the Navy would let him crawl into during a career that took him up to Rear Admiral stripes . . . plus his own personal fleet that has consisted of several aerobatic types, a Hellcat and, of course, his all-time favorite, the Staggerwing Beech. Dub, as most aviation buffs know, started the Staggerwing Club and has been Mr. Staggerwing for 'lo these many years.

Yet, his latest project was, yes, a J-3 Cub.

Dub currently owns a big rip-snortin' PJ-260 that he wrings out whenever he has the notion and he has access to any number of other aircraft, but, like so many of us, he also likes to go out on occasion and do nothing more than "get some bugs on the wings," as he puts it.

The Cub is, of course, the quint-essential bug smasher.

Dub came by his Cub in a manner that was quite frustrating for many of his fellow members of the Tullahoma Bunch. It seems there had been a J-3 across the airport from Parish Aerodrome for years - just a 'molderin' away. The tires were flat, it was covered with dust and the wing tips were "bowing up like a Cessna 310," as Dub described it. Everyone in the area had tried to buy the airplane at one time or the other it seemed, but the owner wouldn't sell. Thus advised, Dub didn't even bother.

When he got Cub fever, Dub began asking around and soon heard of one for sale in the Huntsville, Alabama area. The first decent day after that, he rolled out his PJ-260 and prepared to blast off to the south to check out the rumor. About that time a fellow walked up and asked for a ride. Dub politely explained the nature of the mission he was about to undertake . . . to which the gentleman

replied, "Give me a ride and I'll sell you my Cub." Only then did it dawn on Dub who the fellow was.

Needless to say, the stranger got his ride . . . and Dub got his Cub.

Shortly thereafter, the little ol' J-3 was towed across the field to Parish Aerodrome . . . this was the summer of 1978 . . . and the tear-down and restoration was begun. Like most Aerodrome rebuilds, it was a community project right from the beginning. Dub says it is hard to recall all the people who had a hand in it at some time over the next three years. Friends would saunter in, grab hold of the other end of whatever was being worked on at the moment and after the crisis had passed, would go on about their business. "That's the way it is around here - it's just great!" Dub says. This was not a full-bore, maximum effort restoration, Dub emphasized. "We just took our time and did it as a hobby."

There are three things he always looks at when he sees a new Cub restoration, Dub says - the wing leading edge, the stringer lines on the aft fuselage and the nose bowl. It's surprising how many otherwise beautiful jobs are marred by the restorer's attempt to cover up one or more of these items with a shiny coat of polyurethane. It never works . . . and Dub was determined none of the aforementioned sins would be a part of his airplane.

A new nose bowl (and cowling) were purchased, the wooden fuselage stringers were replaced with aluminum extrusions from Univair and the (too) thin leading edge was replaced with a heavier gage of sheet aluminum. Richard Blazier did the cover job and, in the process, incorporated a neat little trick to further enhance the desired smoothness of the leading edges. They were covered with a boot lining material that is a thin layer of foam with a cloth backing . . . then the entire wing (as well as the remainder of the airplane) was covered with Grade A cotton, filled and built up with nitrate dope and finished with non-tautening butyrate. In all about 32

coats of dope were applied . . . with not too much sanding between the early and mid coats.

"You can still see the tapes, though, because we didn't want it to look like plastic. We wanted it to still look like a Cub."

The Continental A-65 was given a complete major and Dub, of course, had the assistance of the local engine expert, Wayne Amelang.

The airplane was finished just in time for the annual Memorial Day weekend bash at Tullahoma (those guys would celebrate Arbor Day with a fly-in!). Jimmy Snyder signed it off on Friday and Dub and company "put some bugs on the leading edge that weekend."

A few weeks later, Dub flew the Cub over the hills to the Gainesville, Georgia fly-in and came home with the Grand Champion trophy . . . "for all the Tullahoma Bunch," he maintains with some fervor.

## Postscript

As I was preparing to photograph Dub and his Cub, I noticed another splash of bright yellow across the fence from it in the parking lot. Closer examination revealed it emanated from a newly restored 1948 Indian Chief motorcycle - owned by Joey Kemp, still another member of the Tullahoma Branch. Since so many antique airplane enthusiasts are also antique motorcycle and car freaks, and since the Indian and the Cub were of the same era, I thought it would be neat to photograph them together. We rounded up Joey and the result is what you see accompanying this article. Joey says the Indian was a complete disaster when he happened upon it - had, in fact, been sitting out in the weather for 12 years. It took two years to restore it to runnable condition. It had exactly 252.8 miles on the odometer when he parked it in front of Dub Yarbrough's J-3. Joey also has a 1950 Swift he restored a few years ago. A beauty.







# The AOK...!s!



Phil Edmonds went to work for Waco in 1935, the year they introduced the Custom cabin jobs - the CUC, UOC and what many consider the most beautiful Waco of them all, the almost perfectly proportioned YOC. Assigned to the engineering department, Phil was there to help usher in the EQC-6s and 7s, the YKS-6s and 7s, the UPF-7, the tri-gear N models and the magnificent Es. He was there when aircraft production ended in 1942 . . . and was transferred to the Inspection Department for the war years when Waco gliders were being built. Phil can tell you all about the "last Waco", the highly unorthodox pusher propellered Aristocraft W. And, sadly, he can also fill you in on the details of the demise of the proud old company. He helped close the doors . . . and, in fact, bought the remaining Waco tubing stock and went into business for himself as Machine Craft. One of the earliest members of EAA (#137), Phil supplied the tubing for quite a number of early homebuilts . . . the prototype Dyke Delta, for instance. He ultimately sold the company and retired, but his interest in aviation has never waned.

Some years ago, Phil built a little low wing lightweight powered by a Menasco target drone engine. He played around with it until he blew the engine, then sold the airframe to his friend, Ray Martin (who, incidentally and coincidentally, has the very next EAA number after Phil's, 138).

In 1970 Phil started another homebuilt, a much more ambitious project and one more closely tied to his past. Essentially, he says, it is the homebuilt equivalent of a "stand-off scale" model of a cabin Waco . . . the fuselage and vertical tail planform echoing the long, clean lines of the Model E cabins, but with the strut-braced, nearly constant chord

wings of the Custom cabins.

With an upperwing span of 25 feet and a fuselage length of just over 20 feet, the homebuilt, dimensionwise, is about 3/4 the size of a 1940 SRE . . . but with an empty weight of 951 pounds is just 35% as heavy as an SRE at 2734 pounds. That's just as well, since the homebuilt's 125 horsepower is 28% of the SRE's 450. It is, nevertheless, half as fast and carries half the pilot and crew.

Phil's homebuilt is called the AOK, and even that is patterned after the typical three letter model designations used by Waco (ATO, QDC, etc.). In the Waco scheme of things the letters, in order, stood for (1) the engine make and horsepower, (2) the wing and fuselage design and (3) the model type or series. "AOK" stands for "aero camper" (kamper) and, of course, a little space age double entendre that, no doubt, reflects Phil's evaluation of his brainchild.

The AOK, then, is a two-place, side-by-side cabin biplane powered by a Lycoming O-290D rated at 125 hp. The fuselage and tail feathers are fashioned of steel tubing and the wings are all wood, except for fittings, drag and anti-drag wires and an aluminum leading edge. The airframe is covered with 2.7 oz. Dacron and butyrate dope. It is painted solid red and lacks only one of those tasteful Waco fishhook stripes down the side of the fuselage to have that 1930's look.

The two fiberglass wing tanks hold a total of 43 gallons (40 useable) which gives a duration at 68% power (6.2 gph) of 6 hours with a comfortable reserve. The landing gear is mounted well forward (in typical Waco fashion) and is snubbed with shock cords hidden in the belly of the fuselage - very similar to a Piper Super Cruiser.

In addition to specs already given,

the lower wing panels span 22 feet and all four panels have a chord of 50 inches. The total wing area is 180 square feet. Gross weight is 1550 pounds so the wing loading is only 8.61 pounds per square foot. With the prop currently used, the AOK cruises at an indicated 103 mph at a low cruise setting. Stall is at 50 mph indicated - and only mushes through.

Phil completed his AOK and flew it initially in December of 1979. His initial weight and balance calculations indicated the airplane would be quite nose heavy - but after going back over the figures of some of the old cabin Wacos, with their 50% stagger between top and bottom wings, he found them to be in the same CG range. He didn't quite believe the numbers, however, and decided to bolt 22 pounds of weight in the tail for the first flight. "I took that out immediately!" he relates with a chuckle. Subsequently, with the old Waco-like CG, the airplane has flown very much to Phil's expectations for it. He says that the AOK handles cross-wind landings with ease.

The tach showed 76 hours, total time, at Marion and Phil's longest trip to date has been to Blakesburg in mid August for the AAA fly-in. He was thwarted by bad weather in making Oshkosh this year, but will try again in 1982. The big baggage compartment, designed to handle bulky camping gear, served its purpose well and the summer outings Phil has been able to make with the AOK have made the 9 year building time well worthwhile.

Like the Wacos of yore, the AOK serves its intended role in comfort, style and reasonable efficiency. It also draws crowds at the gas pumps, Phil found on his Blakesburg trip . . . a little icing on the cake that doesn't hurt a bit!

# Marion '81

As it was with the Waco Fly-In earlier in the summer, our stay at the Mid-Eastern Regional EAA Fly-In at Marion, Ohio was a one day stand - Saturday again. This was the peak of their fly-in, also, so we were able to see most of the airplanes that attended and were able to record a couple of interviews you'll read elsewhere in this issue.

The weather was good at Marion, also, and the turn-out of people and airplanes was quite impressive. The Marion airport has vast expanses of smooth lawn-like grass between runways on which the show aircraft are parked and all categories are mixed together. That way, every row is an adventure - with a Fairchild 24 parked next to a VariEze, which is next to a Taylorcraft, which is next to a Daphne, which is next to a Cherokee

II glider . . . etc., etc. I like this sort of variety and it certainly cuts down on manpower requirements at the smaller-than-Oshkosh events to park 'em this way.

One of the best things about fly-ins like Marion are the people you see. The first familiar face was right at the gate - Jenny Dyke. She was registering the show planes as she has for who knows how long. Just inside, we spotted Don and Liz Stewart . . . then Joe Jones and Dutch Brafford . . . John Grega . . . Chuck Woerner . . . and on and on. In most cases, these are friendships that go back to the early Rockford days. I suppose that's one of the attractions of our sport aviation community - it is a sort of constant in an otherwise rapidly changing world. Every year you can count on seeing the same smiling faces at fly-ins

. . . or almost anywhere. A few years ago, Golda and I were touring the Winchester House in San Jose, CA and almost literally bumped into John Grega there!

We thoroughly enjoyed our day at Marion and hope to go back another time and stay for their legendary evening bonfire and fire pies - yes, fire pies! We'll explain that when we get to sample one.

Put Marion on your sport aviation calendar for next year. It's a friendly fly-in at a beautiful site and with an outstanding field of homebuilt, antique, classic and ultralight aircraft to ogle and photograph. It's one of the last biggies of the year held nawth of the Mason-Dixon Line before the snow flies. Enjoy while you can!! ☺

Chuck Woerner's 220 Continental powered Fokker Tri-Plane.



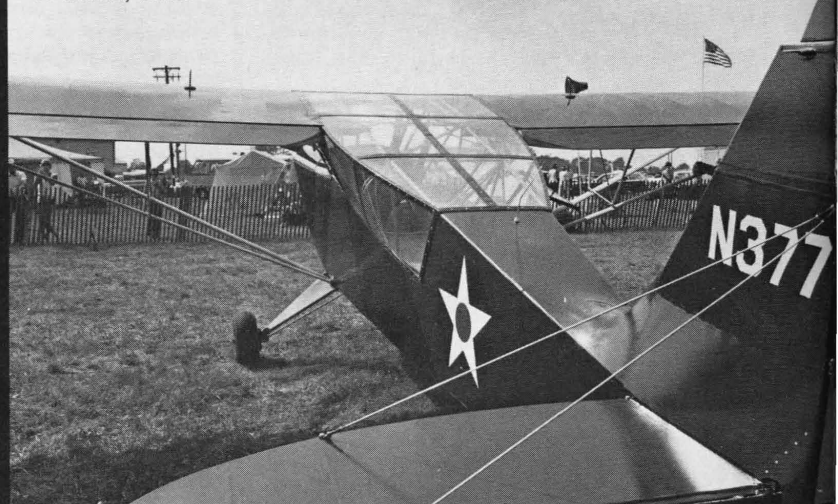
Baron Von Woerner.



Marion is in John Dyke's backyard, so naturally several Deltas were in evidence. This was a brand new one — flying but not yet painted. The owner is Tom Bower.



A beautifully restored Interstate L-6 — by Wayne L. Walton of Salem, Ohio.





200 Lycoming powered Stephens Akro owned and flown in the air show by Larry Worrell of Wadsworth, Ohio.



Slick little 1939 Dart GK converted to an O-290-D2 Lycoming. Owned by Art Bishop of Norton, Ohio. Used to fly aerobatics through Intermediate level.



A striking black and white 1939 Taylorcraft BL-65. Owned by Ricky L. Boggs of Grove City, OH.



One of the nicest Luscombe interiors we've seen — in white Imron. The work of Steve and Debbie Lund of Flushing, MI.

# A 32 YEAR

Dutch Brafford and his Cessna 140.



# LOVE AFFAIR

Hey, listen up! I'm about to let all you readers of SPORTSMAN PILOT in on a dynamite exclusive . . . a real expose! Did you know . . . brace yourselves . . . that one of the most consistent trophy winners at Oshkosh over the past decade - it's in the Classic category - has NEVER been restored! That's right, folks, a 35 year old airplane that has taken home a ton of trophies from EAA's big Convention . . . and it's NEVER seen the inside of a restorer's shop!

A scandal, you say? Outrageous, you cry!

Yes, I know what you're thinking . . . EAA judges on the take - fly-in officials being wine and dined for their favors . . .

Well, darn, I'm sorry to have gotten you in such an uproar . . . because, you see, none of that has been going on. Yes, it's true the airplane has never been restored, but the proud owner didn't have to bribe anyone for trophies.



All he has to do is fly the airplane to Wittman Field, park it in the Antique-Classic area and be virtually assured of an award.

And it's been going on for 32 years!

Dutch Brafford, you see, bought a barely used Cessna 140 in 1949 and he's had it ever since. It still has the original engine, a Continental C-85, and all its original major components - wings, tail surfaces, fuselage, landing gear and cowlings. There have been no crashes along the way to require substitutions. It even has its original GE low frequency radio . . . and it still works! You can't



miss this airplane, even among all the gussied up beauties at Oshkosh. It has one of the most spectacular polished metal exteriors you'll ever encounter and no matter where you peek, inside or out, it's as sanitary as an operating table.

And, I repeat, it's NEVER been restored.

What you ARE looking at when you drool over this gorgeous airplane is one of the most outstanding examples of **progressive maintenance** to ever come down the pike. When he bought the airplane . . . right on the Bluffton airport where it's hangared today, 32 years later . . . NC89728, a 1946 Cessna 140, Serial No. 8777, was essentially a new airplane. It had been flown from the factory in Wichita to a dealer at Marion, OH in 1946 and shortly thereafter was sold to a pilot in nearby Lima. Unfortunately, the new owner's wife didn't



like it, so it was rarely flown. A few years later it was sold to another Lima pilot who turned right around and sold it to Dutch . . . for \$1350!

\$1350 may sound like a fantastic bargain today, but that was a lot of money in 1949, especially for a young World War II veteran still struggling to get his family settled and a small auto repair shop established. It was a proud and important moment in Dutch's life to become the owner of this airplane . . . and like most all of us would, he spent the first few weeks of ownership going over it from stem to stern, cleaning, polishing and, when no one was looking, carressing his new toy.

UNLIKE most of us, he's never stopped.

We all start out like Dutch, but after a time, the old polishing routine begins to get old . . . or we succumb to the wiles of a newer, sleeker, faster mistress. Not Dutch. His love affair with his 140 has endured these past three decades and, if anything, grows as the years tick by. In the early days, the 140 was just a nice, exceptionally well cared for little airplane. Now, however, it is a rapidly appreciating Classic that wins trophies . . . and draws an admiring crowd at every airport he lands at for fuel. As he grows older, his mistress becomes more youthful and more desirable . . . top that, Mother Nature!

Now, I must concede that the "never having been restored" bit is open to interpretation. We normally think of "restoration" in terms of a complete remanufacturing of a pile of junk into a better-than-new airplane . . . like Wayne Amelang's work on his Parks P-2 you'll read about elsewhere in this issue. In that sense, Dutch has, indeed, **never** restored his 140. He has, however, rebuilt or replaced a lot of items over the 32 years - as they have worn out. The engine has been overhauled once; the upholstery has been replaced three times; the wings were recovered twice, then metallized; three radios have been installed, a GE low freq, a Narco Superhomer and a Narco Escort 110 - the first and last of which are in the airplane today; the original wood prop was replaced with a metal one - and a Cessna 150 spinner; it's had one new windshield, the D-windows were replaced three years ago and new side windows were installed last year. The small amount of red trim paint has been replaced three times - stripped to bare metal, primed and painted on each occasion, and the original tailwheel has been replaced with a softer Maule unit. 89728 did not have wheel pants when Dutch bought the airplane; he got them . . . new . . . from a Cessna dealer back sometime in the 1950s for, sob!, \$40.00! (He says among other Cessna owners, these are the most admired parts of the airplane - he regularly gets cash offers for them far in excess of the forty bucks, as well as tongue-in-cheek - he hopes! - threats to steal them if he leaves the bird unguarded for a minute!)

In addition to the normal maintenance items, Dutch has, of course, complied with all the AD notes that have been issued on 140s - installing heavier door posts, tail stiffeners, etc. About the

only thing that could be considered an "update" is the fact that he has recently installed strobe lights and a 35 amp generator.

But, again, these things were added or accomplished gradually over a period of 32 years, usually at annual time. The airplane has never been down for any length of time.

In addition to the constant TLC, the 140 has always enjoyed an easy life from the operational standpoint. It was never a trainer (which is unusual for a 140) and it has never been used for anything other than weekend sport flying. Apparently, the longest flight it's ever made was the ferry flight from the factory in Wichita to the dealer in Marion, Ohio. Dutch has flown it mostly in and around western Ohio and Indiana. He takes it to Oshkosh most years - but that's about it. He has put about 1800 hours on the airplane since 1949 - which averages out to about 56 hours per year.

And this brings up an interesting point.

The FAA, the business flying/industry organizations, some of the newsstand magazines and a lot of our fellow pilots who fly for a living seem to think people like Dutch are special, isolated cases. His 56 hour per year average flight time, they maintain, is an exception to the "national average" of from 150 to 250 hours (they can't agree on the number, it seems). Undoubtedly, they're right when you lump everything from Luscombes to Lear Jets as "general aviation" and average their flight time. If, on the other hand, you consider **as a group** pilot/aircraft owners who fly strictly for recreation, an entirely different picture emerges. I've had the privilege of meeting and interviewing grassroots, strictly weekend pilots for the last 20 years or so at fly-ins all over the United States, and MY experience has been that Dutch Brafford's 56 hours per year is quite typical. EAA, as most of you know, quotes 50 hours as the average for its weekend pilot members. What this means, of course, is that the sport flyer pays dearly for his recreation **on a per hour of utilization basis**. Dutch freely admits that, financially, he would be far ahead if he rented rather than owning and caring for his 140. Perhaps . . . but what about the pleasure he derives from maintaining HIS airplane? What about the pride he experiences when someone presents him another trophy for HIS airplane? What about the sense of security he experiences when he flies HIS airplane, knowing as he does every screw, nut, bolt and washer in the airframe? What about his basic **right** to the pursuit of happiness . . . HIS choice of what constitutes happiness. How do you place a value on **these** intangibles?

These are things government at all levels would be well advised to start considering when they are wont to tax us aircraft owners. They're talking about user taxes again in Washington with, as usual, no differentiation between Dutch Brafford's for-fun-only 140 and, say, Standard Oil's biggest corporate jet. To tax the jet would be to sell a license of sorts for the **privilege** of operating the aircraft for business purposes.

To tax Dutch for using his 140 is, in my opinion, tantamount to depriving him of a **fundamental right** . . . you know, " . . . life, liberty and the pursuit of happiness."

It's wrong . . . and it should be resisted.

Okay, look out below! I'm jumping off this soap box and getting back to the airplane in question.

Perhaps the most frequent question Dutch gets at fly-ins is, "What polish do you use to get that shine?" The answer is a product called Blue Magic. As you might imagine, he has tried almost everything over the past 32 years, but nothing compares to Blue Magic, he maintains. He "discovered" it being used by a Ford dealer in Lima to polish mag wheels. The dealer gave him a sample tube to try, and after seeing what it would do, Dutch went back and bought his entire stock! Subsequently, he has ordered a full case from the manufacturers in California. The feature that sets Blue Magic apart from competing brands, according to Dutch, is the elimination of the brown haze or "smoke" left by other polishes. Blue Magic comes with shakers of a flour-like substance you sprinkle on your wiping cloth - which takes off the brown haze, leaving a super clean "blue" look to the aluminum. Great stuff, Dutch says, and he recommends it to all of you.

If you're at Oshkosh or Marion next year, look N89728 up and examine it carefully (don't touch!). Not many of us are going to own the same airplane for 32 years . . . but if we did, Dutch's 140 is what it should look like when we get there.

We should be so lucky!



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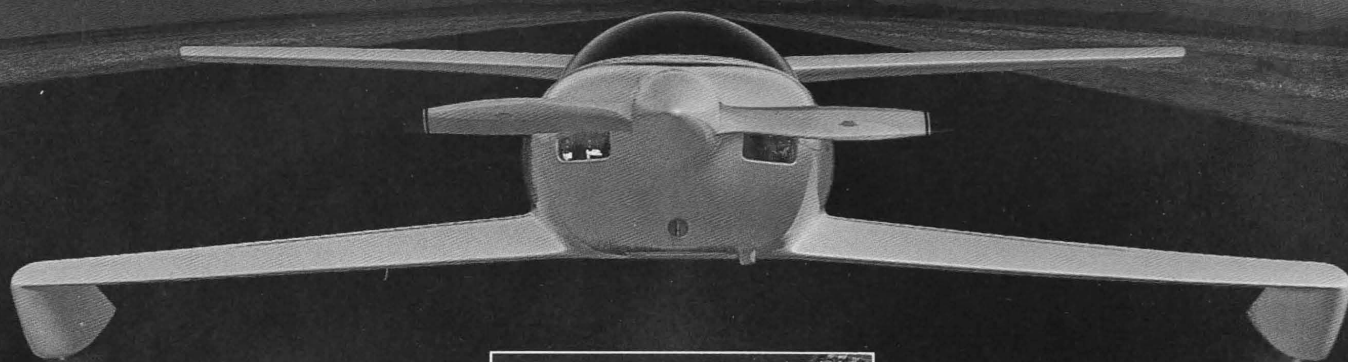
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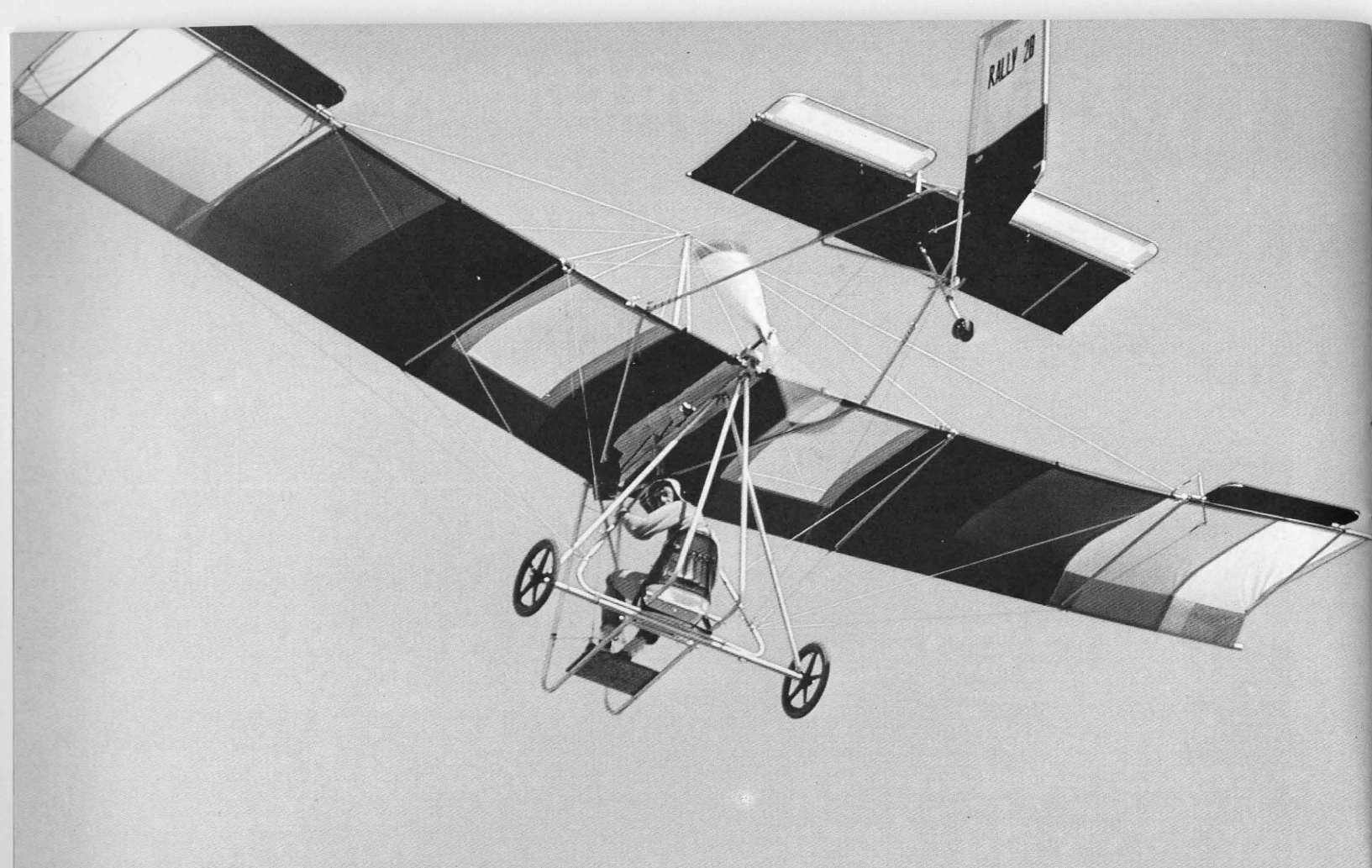
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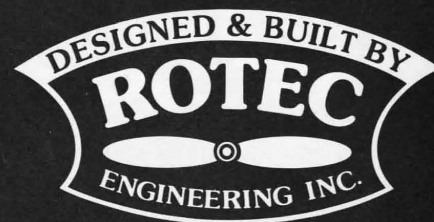
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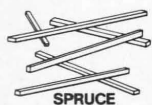
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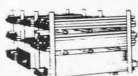
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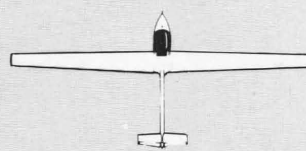
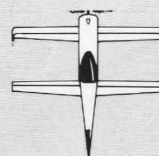
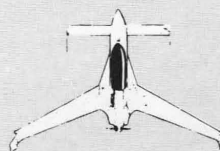
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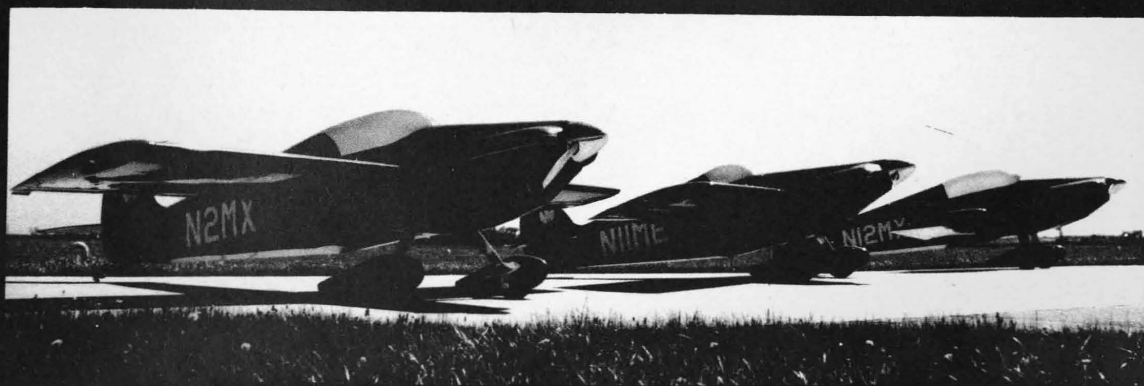
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